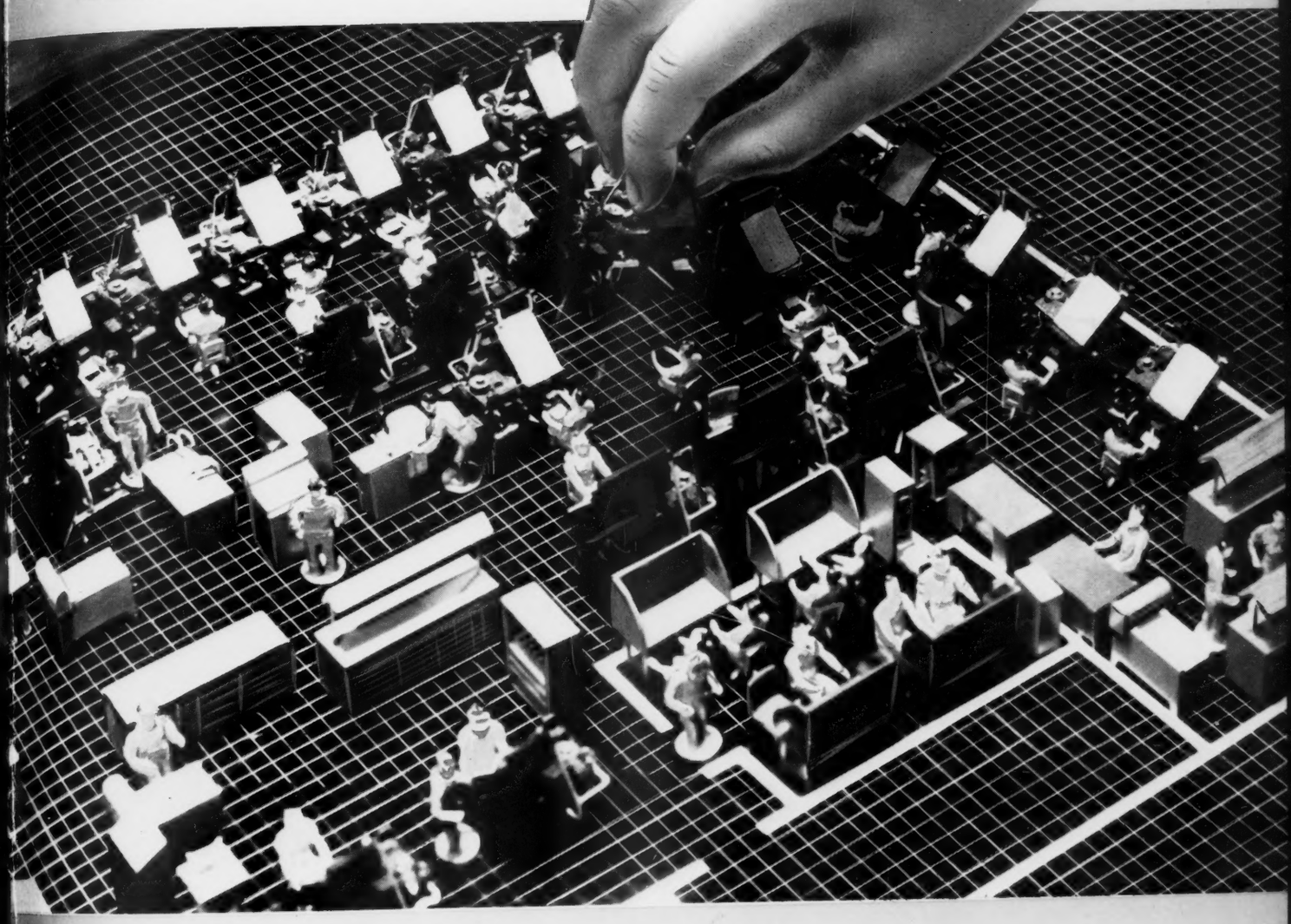
PRINTING PLANT

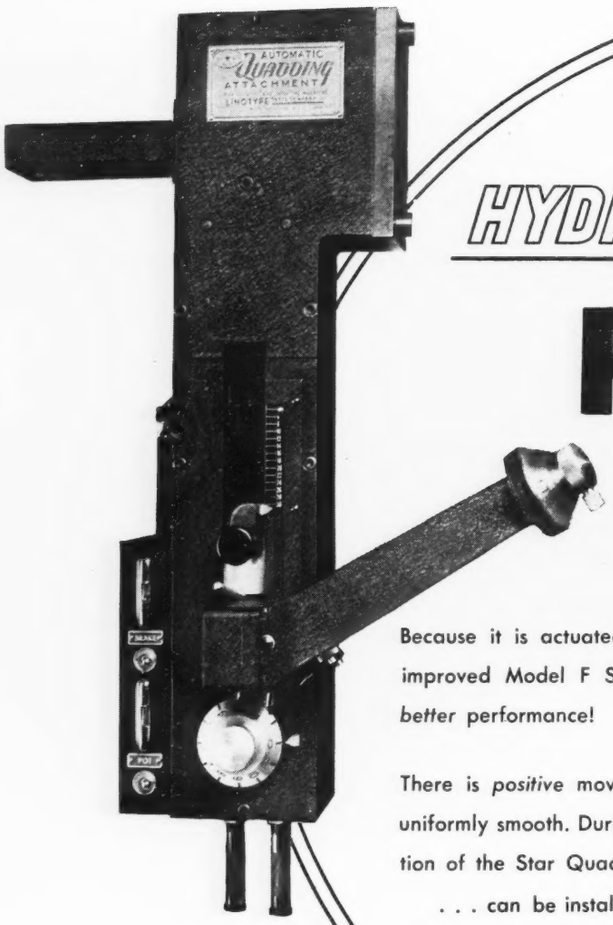
Planning and Improvement

MARCH 1953



PRINTING EQUIPMENT *Engineer*

AN INDUSTRY-WIDE TECHNICAL PUBLICATION



The STAR *HYDRAULIC* Quadder

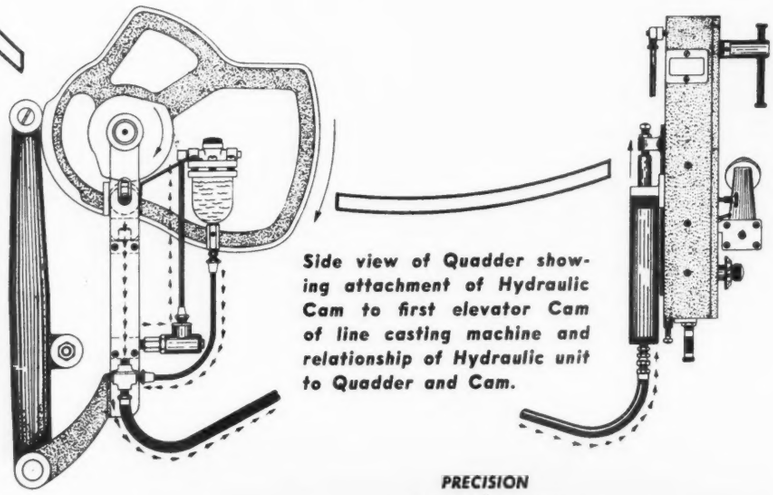
PERFORMS BETTER!

Because it is actuated by a separate cam and a hydraulic system, the new, improved Model F Star Quadding Attachment assures steady, uninterrupted, *better* performance!

There is *positive* movement and control of Vise Jaws . . . motion is soft and uniformly smooth. During casting process, Vise Jaws remain firmly locked. Operation of the Star Quadder is independent of the machine to which it is attached . . . can be installed on any Linotype or Intertype machine regardless of age. Maintenance is simple and low in cost. Write us today for full details.

HERE'S NEWS FOR PRESENT STAR QUADDER OWNERS

The Hydraulic Actuation Unit of the new Model F Quadder can be attached to *any* outstanding Star Quadder.



Side view of Quadder showing attachment of Hydraulic Cam to first elevator Cam of line casting machine and relationship of Hydraulic unit to Quadder and Cam.

PRECISION
TRADE ★ MARK

LINOTYPE PARTS COMPANY
INCORPORATED
Factory and Main Office
SOUTH HACKENSACK, N. J.
Branch Office: 1327 BROADWAY, KANSAS CITY 6, MO.
CHICAGO • MINNEAPOLIS • DENVER • LOS ANGELES • BOSTON

REPEAT ORDERS PROVE STEREOTYPERS PREFER STA-HI MASTER ROUTER

Repeat orders on any product are a pretty infallible indication that it lives up to every expectation of the buyer. The STA-HI Master Router has been definitely "accepted" on this basis in some of the leading newspaper plants of the world. These customers originally installed just one of these precision machines to prove to themselves it would meet every claim made for the equipment—and they have followed up by purchasing additional units to adequately and efficiently handle their curved plate routing.

Sta-Hi Master Router

The Chicago Tribune, for example, originally ordered one Master Router and now has a total of seven machines—three of them specially designed to handle double-page plates.

The Miami, Fla., Herald has just ordered two more Master Routers, giving them a total of three. The Los Angeles Times started with one, now has three. The following progressive publishing plants had one, now have two or more units in operation:

Manila, P. I., Times
Minneapolis, Minn., Star & Tribune
Nashville, Tenn., Banner & Tennessean
New Orleans, La., Times-Picayune
Oklahoma City, Oklahoman & Times
Seattle, Wash., Times
Toledo, Ohio, Blade
Vancouver, B. C., Sun
Victoria, B. C., Colonist
Zurich, Switzerland, Chromos, A. G.

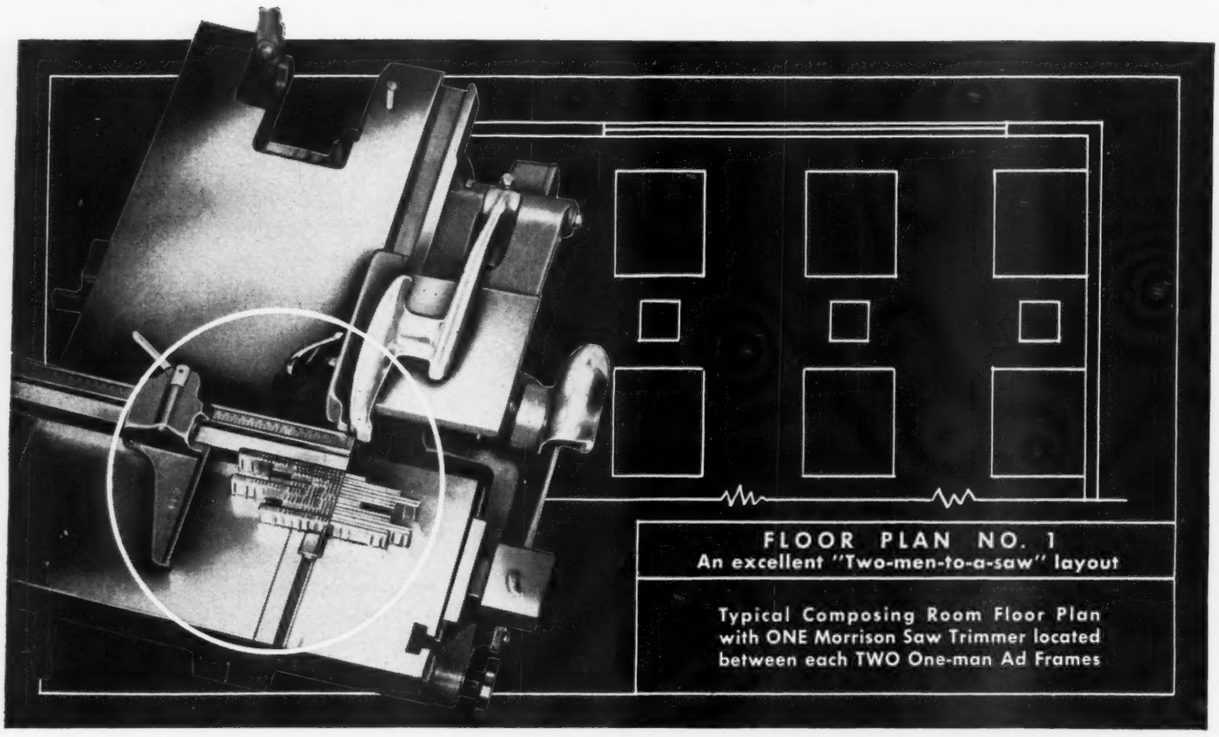
Discerning stereotypers have discovered that the STA-HI Master Router is superior to other curved plate routing equipment in speed, safety, ease of operation and precision results. That's why close to 200 of these time and money saving machines are now in daily operation!

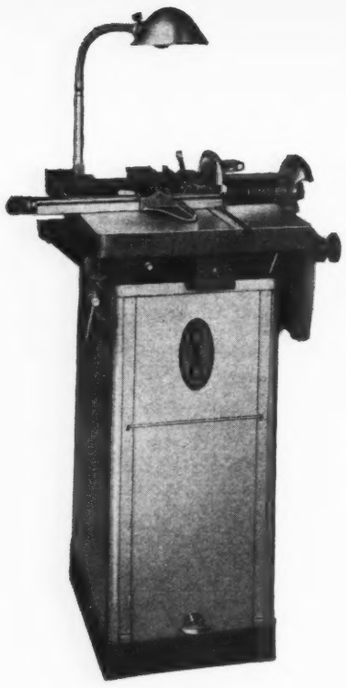
STA-HI CORPORATION
BOX 152, WHITTIER, CALIFORNIA

● **THE MACHINERY TO SEE IN '53 IS COMING FROM STA-HI!**
Watch for our announcement soon introducing the Sta-Hi Master Matcher . . . an entirely new precision machine for registering color printing!

OUR SILVER ANNIVERSARY OF SERVICE 1928 STA-HI 1953 ® TO AMERICAN NEWSPAPER PUBLISHING

Composing Room Efficiency Centers on your SAW TRIMMER


FLOOR PLAN NO. 1
An excellent "Two-men-to-a-saw" layout
Typical Composing Room Floor Plan with ONE Morrison Saw Trimmer located between each TWO One-man Ad Frames



Model 3-A Saw Trimmer

Handles amazing variety of work. Table, 30"x 18". Model 45 with 18"x 27" table "Pistol Grip" blade adjustment. Low cost Model "45 Special" for auxiliary use.

MORRISON SAW TRIMMER

"Behind the Gauge" Workholder Improves Safety and Work Accuracy

With the radical Morrison "Behind the Gauge" Workholder your work is easier to see and watch, closer to the operator for greater safety, accuracy and faster work. The pull of the saw blade holds the slugs more compactly, instead of fanning them or causing them to buckle and jump. It's a great improvement over conventional workholding methods.

This "Behind the Gauge" Workholder is one of many reasons why the Morrison Saw Trimmer is one of your most important time and labor savers in composing room operations. Others are proving it every day. There's an owner nearby; ask for his name so you can see and try it yourself. Or write for descriptive folder "Essential to Composing Room Economy."

Exclusive MORRISON Features:

- Miter gauge with *point* adjustment.
- Patented Universal Saw Blade, with saw grinding attachment.
- Right and left hand mitering, all miters face up.
- Miter and lineup gauge.
- Automatic index for plate cutting and trimming positions.
- Swing-out 135 Pica Extension Gauge.

Get Your Money's Worth in Saw Trimmers... **BUY A MORRISON**

Symbol of Operating Economy

THE MORRISON COMPANY

THE *Morrison* COMPANY

PRECISION MACHINES FOR THE GRAPHIC ARTS INDUSTRY

125 W. Melvina Street, Milwaukee 12, Wisconsin

Throughout the Nation—
and Around the World—

it RUNS and RUNS and RUNS

SCOTT newspaper equipment has a world-wide reputation for standing up under grueling, 'round-the-clock use, day in and year out. Its great flexibility enables the production of a four-page tabloid or a 128-page newspaper with equal facility, at the unparalleled speed of 50,000 newspapers per hour.

The downright dependability of SCOTT "Extra High-Speed" Presses and Folders is a direct result of sound basic design and durable construction. They are built to run and Run and RUN.

This is the inherent quality that has won for SCOTT equipment the enthusiastic approval and confident reliance of outstanding Publishers all over America—and around the world.

WITH THESE LEADING PUBLISHERS IT'S **SCOTT** "All The Way"

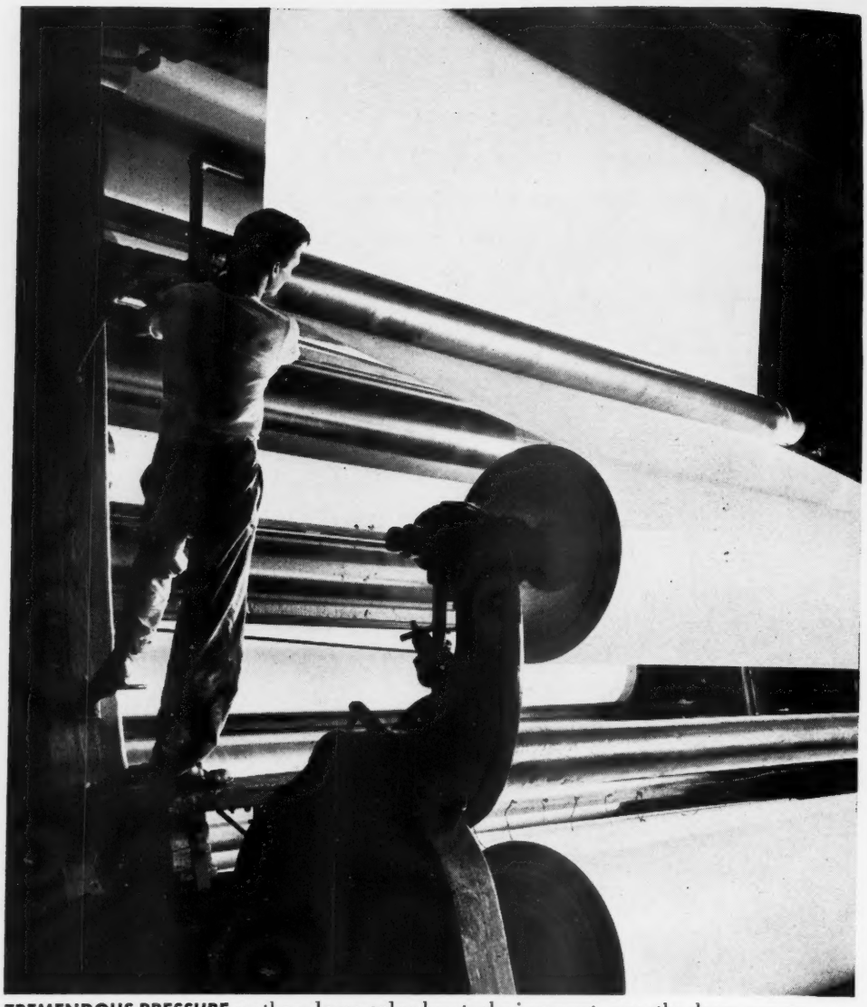
Amarillo Globe-News
The Ann Arbor News
Atlantic City Press-Union
The Bay City Times
Boston Herald-Traveler
El Diario de Nueva York
Buffalo Courier-Express
Camden Courier-Post
The Charleston Daily Mail
Chattanooga Times
Chicago Herald-American
Columbus Ledger-Enquirer
The Dallas Times-Herald
Danville Register-Bee
The Davenport Times
Dayton Daily News
The Detroit News
Duluth Herald & News-Tribune
Easton Express
Erie Dispatch-Herald
Fairchild Publications
The Fresno Bee
The Gary Post-Tribune
Grand Rapids Press
Bergen Evening Record
W. F. Hall Printing Co.
The Hammond Times
The Houston Post
Houston Press
Jackson Citizen-Patriot
Jacksonville Journal
Long Island Daily Press
Jamestown Post-Journal
Johnson City Press-Chronicle
Knoxville Journal
Los Angeles Daily News
Lynchburg News & Advance
McKeesport Daily News
Miami Daily News
Milwaukee Sentinel
Minneapolis Star & Tribune
The Modesto Bee
Moline Daily Dispatch
New Orleans Item
New Orleans Times-Picayune
New Rochelle Standard Star
Jewish Daily Forward
New York Herald-Tribune
New York Daily News
New York Post
Newark Evening News
The Ottumwa Courier
Passaic Herald-News
Paterson Evening New
Philadelphia Evening Bulletin
Phoenix Republic & Gazette
Pontiac Daily Press
Portsmouth Star
The Quincy Herald-Whig
Rockford Register-Republic
The Sacramento Bee
The Saginaw News
San Francisco Examiner
San Francisco Shopping News
Santa Ana Register
Seattle Post-Intelligencer
The Sharon Herald
Sioux City Journal-Tribune
Stamford Advocate
Steubenville Herald-Star
Stockton Daily Record
Tarentum Valley News
Hudson Dispatch
The Washington Post
The Washington Evening Star
Palm Beach Post
White Plains Reporter-Dispatch
Wilkes-Barre Sunday Independent
Winston-Salem Journal and Sentinel
Worcester Telegram-Gazette
The York Dispatch

Buy with Confidence—Buy Scott

WALTER SCOTT & CO., Inc.

PLAINFIELD, NEW JERSEY

OIL! From its own wells Huber produces oil it uses in making carbon black, a basic ingredient of inks.



TREMENDOUS PRESSURE on these large calender stacks irons out, smooths down papers coated with Huber clays. HUBER NEWS picture story shows "How Paper Is Made."

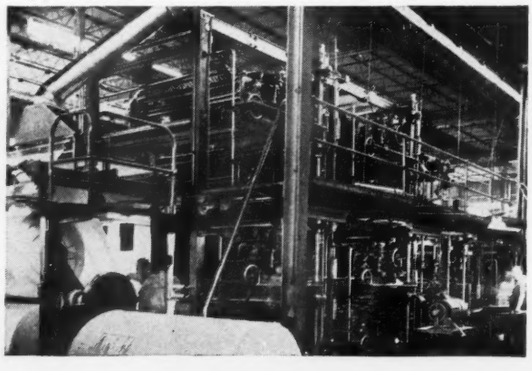
IF YOUR BUSINESS INVOLVES THE GRAPHIC ARTS, BE SURE TO READ THIS...

Nothing's more basic to the graphic arts than the tools of the industry—paper and ink. And the more you know about these tools, the better they serve you. That's why you'll want to read this issue of HUBER NEWS. It's packed with information on both paper and ink. There's a four-page picture report on "How Paper Is Made"; a behind-the-scenes story on printing famous *Sporting News*. And much more. You'll want to read HUBER NEWS. Write for your free copy.

BALLPLAYERS' BIBLE: *Sporting News* has never printed an error in fact. Read HUBER NEWS' story.

Boos Fires Blast at Phil 'Fat Cats'... Page 5
BASEBALL
The Sporting News
Veeck Leads Fight to Restore Bonus Rule
'Rich Clubs' Baseball Critter
AMERICAN LEGION
The Sporting News
JUNIOR BASEBALL SECTION
16,000 TEAMS LINE UP FOR '52 CARNIVAL
By Durroc
New Zoning Plan to Help Large Cities
Code Mark No. 1 Good
SERVICE
The Sporting News

UP TO 20,000 COMIC BOOKS PER HOUR roll off this huge press. HUBER NEWS tells how comic books—an increasingly important industrial sales tool—go to press.



J. M. HUBER CORPORATION

HUBER **INK DIVISION**

626 62nd Street, Brooklyn 20, New York

Ink Plants: Bayonne, N. J.; Borger, Texas; Boston, Mass.; Brooklyn, N. Y.; East St. Louis, Ill.; McCook, Ill.

Ink Sales Offices: Boston, Mass.; Brooklyn, N. Y.; Chicago, Ill.; New York, N. Y.; East St. Louis, Ill.

HUBER PRODUCTS IN USE SINCE 1780

MARCH 1953

PRINTING EQUIPMENT *Engineer*

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in the commercial, magazine, private plant and daily newspaper fields.

Volume 83 **Number 6**

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Printed in U. S. A.

LEADING ARTICLES

(The illustration on the front cover of this issue of *Printing Equipment Engineer* was made from a photograph furnished by Mergenthaler Linotype Co. It is representative of one of the three-dimensional composing room layouts with which Linotype has been experimenting to secure efficient arrangement. From time to time, the Linotype Company has made use of these scale models to design and restyle composing room layouts and production flow for a new building or when composing equipment is to be replaced.)

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LEADING
IN
DEPENDABLE
PERFORMANCE

To preserve the detail of the full range of halftone values, men who know stereos prefer Wood Dry Mats for quality reproduction.

WOOD FLONG CORPORATION
HOOSICK FALLS, N. Y.

New York City Office
551 FIFTH AVENUE, NEW YORK 17, N. Y.

Speed paper handling with
ECONOMY ELECTRIC LIFTERS

The arms of the Economy Electric Lifter hold the paper at any height with an automatic brake. Paper can be "inched" up with electric power as each lift is transferred to cutting or sorting table. This positive control makes handling of paper easy so that bindery girls can do the work that otherwise would require a man's strength. Being portable, these Economy Electric Lifters can be moved about to serve in any part of the plant.

Economy Lifters are also very useful for handling skids or rolls of paper at loading platforms.

Write for complete specifications of this paper handling lifter. Our engineers can help with your particular problems.

ECONOMY ENGINEERING COMPANY
4501 West Lake Street, Chicago 24, Illinois

Equipment and *Supplies*

If you wish additional information concerning equipment, supplies and/or technical literature, please make your request to PRINTING EQUIPMENT Engineer, 1276 West Third St., Cleveland 13, Ohio.

Calrod Heater Catalog

THE 1953 edition of General Electric Co.'s catalog on Calrod electric heaters and heating devices is now available. Descriptions of equipment in the 60 page, two-color catalog pertain to application, special features, installation and pricing. Approx. 175 illustrations show the various heater-types of products, including immersion, strip, cartridge, tubular, insertion and fin heaters. Other devices described are melting pots, thermostats, switches, oven heaters and induction heaters. Indexed by process and application, the catalog also contains methods of determining power requirements and heat losses by applications. These are explained with graphs and formulas. Included is an index of G-E application bulletins, and available data and specification sheets. The catalog may be obtained by mentioning PEE No. 559 in your request.

Paper Cartons Packed on Expendable Pallets

UNITIZED loads of 16 cartons of paper packed on an all-corrugated expendable pallet have been announced by Kimberly-Clark Corp. The unitized loads are available for all grades of the company's coated and enamel book papers with minimum orders of 16 cartons of a single item.

The following sheet sizes, 22½ in. by 35 in., 25 in. by 38 in. and 35 in. by 45 in., of all standard basis weights of all grades are available with any pallet order. Other sizes, between 17 in. by 22 in. and 38 in. by 50 in., require minimum orders of 5000 lbs.

(*Continued on Page 10*)

Kimberly-Clark Corp.'s unitized load of 16 cartons of paper packed on an all-corrugated expendable pallet. The cartons are held together by glue permitting movement of the load as a single unit. Triple stacking of unitized loads is claimed with the bottom pallet supporting more than 3½ T.

Ludlow Spaces

A handful . . . or tons of spaces and quads

Use of the Ludlow eliminates a problem which is a major handicap in single type composition—that of maintaining a supply of spaces and quads for all possible needs. With single types there must be material for every point size in use, calling for extensive plant manufacture and storage or large outside purchases. Even then type cases or storage units frequently become depleted, calling for forced distribution to keep things moving.

In contrast, the Ludlow compositor has plenty of spaces and quads right at hand—no matter how large the job. The handful illustrated above will provide an unlimited supply for all roman sizes up to and including 48-point, with other sets for italic faces, or for larger point sizes. A single small drawer of Ludlow spacing matrices equals tons of spaces and quads in the cases or in reserve supply. Ludlow spaces and quads are returned to the case along with typeface matrices, so compositors never run out of material.

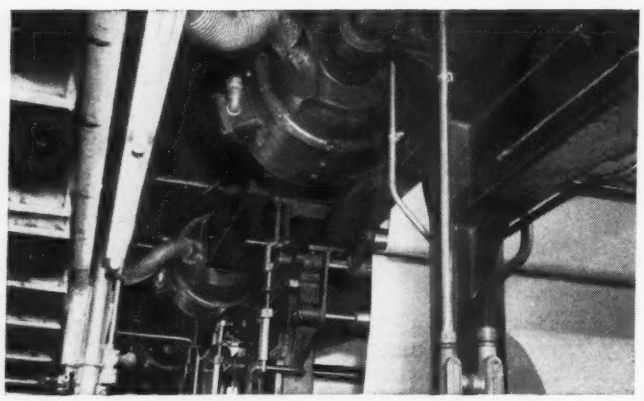
This is only one of the distinctive advantages of Ludlow operation—there are many more. Write us for complete information.

Ludlow Typograph Company **2032 Clybourn Avenue, Chicago 14**

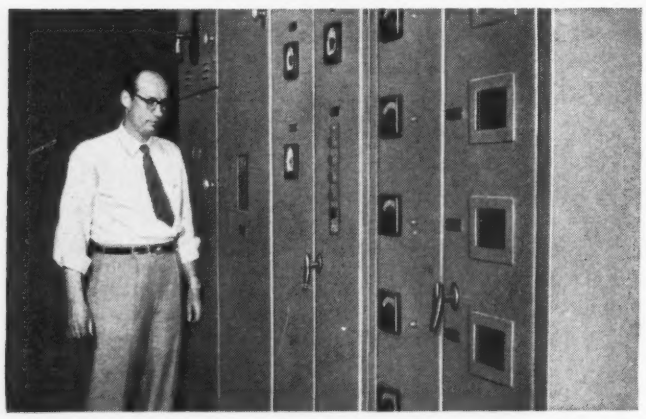
Set in members of the Ludlow Radiant family

FEWER WEB BREAKS result through smooth acceleration and braking afforded by G-E Electronic Drive at Bergen.

Bergen Evening Record cuts costs



POWER COSTS REDUCED through inherent high efficiency of G-E electronic drive over the entire operating range; also, high power factor substantially lowers kva demand charges.



LESS DOWNTIME occurs because G-E drive eliminates threading motors, drive gears, clutches, mechanical brakes; simplified control has long-life tubes, contains no contactors.

G-E electronic drive reduces power costs, downtime and maintenance

Mr. C. T. Shoemaker, Mechanical Superintendent of the *Bergen Evening Record,* Hackensack, N. J., says, "Our G-E Electronic Press Drive is the most satisfactory and reliable drive I have seen.We get a smooth jog for plating-up and a fast smooth acceleration from threading to full speed that really reduces web breaks. Our pressmen like it, and the simplified control panels have eliminated many of our maintenance problems."

Power costs are reduced, too. Because of the inherent high efficiency of the drive over the entire operating range, and high power factor which reduces kva demand charges, the Evening Record realizes substantial long range savings even while operating their new Scott "Extra high-speed" 8-unit, 2-folder press at 50,000-pph.

For more detailed information on how an electronic press drive can help lower your operating costs, contact your G-E printing industry specialist at the nearest G-E Apparatus Sales Office. He can apply to your specific problem experience gained through close cooperation with other newspapers and your press manufacturer. Meanwhile, write for bulletin GEA-5523. General Electric Co., Schenectady, N. Y. 653-24

Engineered Electrical Systems for Newspaper Plants

GENERAL ELECTRIC

Only <u>one</u> tapered roller bearing gives you all these 10 advantages...

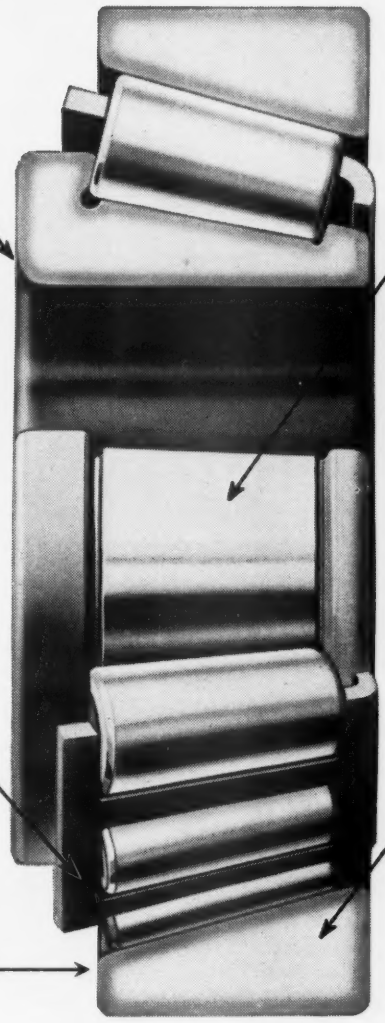
1 GENEROUS RADIUS—for greater shaft strength.

2 CHOICE OF 26 DIFFERENT TYPES.

3 SOFT STEEL CAGE—to keep rollers separate and prevent scuffing.

4 PRECISION MANUFACTURE—which makes possible bearings with a maximum runout tolerance of less than 75 millionths of an inch.

5 CASE-HARDENED BEARING SURFACES—to resist wear.



6 MICRO-INCH SURFACE FINISH—to minimize friction.

7 CHOICE OF 5850 SIZES.

8 TIMKEN FINE ALLOY STEEL—specially developed to give long bearing life.

9 TOUGH CORE—to resist shock.

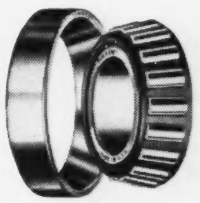
10 POSITIVE ROLLER ALIGNMENT—gives maximum bearing capacity.

...it's stamped with the trade-mark "TIMKEN®"

NO other bearing gives you *all* the advantages you get with Timken® bearings. Ten of these advantages are listed above. They result from the fact that the Timken Company is the foremost producer of tapered roller bearings and leads in 1) advanced design, 2) precision manufacture, 3) rigid quality control, and 4) special analysis steels.

Be sure that every bearing you use in the machines you build or buy is stamped with the trade-mark "Timken". The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS



NOT JUST A BALL ◯ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ⓪ AND THRUST →⓪← LOADS OR ANY COMBINATION →✳←

Equipment & Supplies

(Continued from Page 6)

Sponsor claims the expendable pallet is constructed to support more than 3½ T. permitting triple stacking of unitized loads in paper storage areas. Each unitized load weighs approx. 2400 lbs.

The unitized load is held together entirely by glue. Kimberly-Clark states that while the bond of the palletizing glue has resistance to stresses of shipment, it can be broken easily by a vertical pull to separate cartons for use.

The pallet has a deck of 350 lb. test corrugated fiberboard on top of three runners of plyed-up "A" flute board. The runners, each 4½ in. high and 4 in. wide, are faced on the bottom with 200 lb. test board. A pallet carries one, two or four stacks of cartons, depending on sheet size.

The cartons are made of 350 lb. test board and sealed with strips of rayon filament tape applied vertically. Further information may be obtained by mentioning PEE No. 550 in your request.

Electrostatic Locator

THE Electrostatic Locator (Type D), sponsored by Specialties, Inc., is intended for use by processors of various kinds of material where static electricity is a problem. It may be used by those processing paper, textiles, rubber, chemicals and other materials. The instrument indicates the amount of the electrical charge on moving or stationary equipment or materials.

The instrument is portable and weighs

less than 4 lbs. Power is supplied by a standard flashlight cell requiring replacement every 6 mo. and by two standard 4½ v. dry cell batteries which, in normal usage, require replacement once a year.

Manufacturer states technically trained personnel to make the qualitative determinations. It is also stated that the instrument is extremely sensitive with provision to permit reduction of sensitivity to one-tenth or one one-hundredth. A charged area can be quickly located and its extent accurately determined. Please mention PEE No. 549 in your request for further information.

Plastic Binding Kit

A SMALL plastic binding kit consisting of a hand punching machine and 150 Tauber plastic binding tubes has been reported by Tauber Plastics, Inc. The kit is designed for plastic

The Tauber Plastic Binding Kit designed for plastic binding of small volume jobs.

punching of small volume jobs. Sponsor states the punch will make two Tauber-Tube holes, 2½ in. center to center, in up to 15 sheets of paper, depending upon the weight of stock used. The plastic tubes are kept in three small bins located on the top of the all-plastic punch base. Such an arrangement permits separating the tubes as to size and color. The tubes are protected by a circular crystal plastic disk which spins to allow the operator to use the color and/or size tube desired.

(Continued on Page 20)

SUN-TELEGRAPH Buys 12 GOSS HEADLINER Units With Full Color Facilities

To maintain its dominant position in the 8th largest market and to meet the growing demands of advertisers and readers for more COLOR, bigger editions, and more copies . . . The SUN-TELEGRAPH has ordered 12 Goss Headliner units and three pairs of Uni-flow folders with four color cylinders.

Discussing The SUN-TELEGRAPH'S expansion program, Publisher Edward D. Becker stated: "It will enable us to deliver later news earlier than ever before to our readers. The new presses will more than double the printing capacity of the plant and will produce two-and-a-half times as fast as present equipment."

• • •

Pittsburgh's Metropolitan area ranks 8th in retail sales, 8th in net effective buying power, 8th in retail food sales. Total buying power is estimated at $3,703,464,000.

The SUN-TELEGRAPH, gaining 29.6% in retail zone circulation while population rose 6.3% in 10 years to 2,213,236, **set an all-time record in advertising linage in 1951** — almost 20,000,000 lines. Last year's was close to this volume.

Building designated (1) is present home of The Pittsburgh SUN-TELEGRAPH and (2) is addition being constructed to house new Headliner Presses.

it's **GOSS** *again*

THE GOSS PRINTING PRESS COMPANY

1535 S. PAULINA ST., CHICAGO 8, ILL.

Goss Printing Press Co. Ltd., Preston, England

4 COMPANIES HAVE REORDERED FROM 10 TO 20 TIMES

5 COMPANIES HAVE REORDERED FROM 5 TO 10 TIMES

23 COMPANIES HAVE REORDERED UP TO 5 TIMES

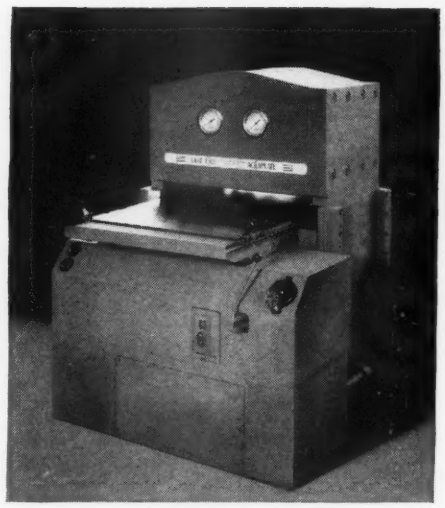
REPEAT ORDERS TELL THE STORY

of customer satisfaction with

ACRAPLATE

This record of repeat orders is outstanding proof that ACRAPLATE is the best equipment you can buy. When the leading firms in any field keep buying the same make of equipment again and again, year after year, you can be sure it is tops.

ACRAPLATE has this record. It has no equal for molding rubber or plastics plates and matrices. Profit by the experience and example of others. Select ACRAPLATE for your plant.



ACRAPLATE—The overwhelming favorite of rubber and plastic plate molders. Model 27 illustrated has a capacity of 270 tons and platens measuring 31″ x 25″. Other models have pressure capacities ranging from 115 to 550 tons and platen sizes from 17″ x 22″ to 36″ x 44″. There's an ACRAPLATE for every type and size of plant.

WRITE FOR BULLETIN No. 350 illustrating and describing the many models of ACRAPLATE.

LAKE ERIE
ENGINEERING CORP.
BUFFALO, N.Y. U.S.A.

LAKE ERIE ENGINEERING CORP.

General Offices and Plant

568 Woodward Avenue, Buffalo 17, New York

★

● Manufacturers of the most complete line of hydraulic presses—3,500 designs with capacities from 5 to 22,000 tons —stereotype molding...plastics molding...rubber vulcanizing...laminating...metal forming...forging...metal extrusion...die casting...briquetting...baling...wallboard... plywood...special purpose.

LAKE ERIE ® ACRAPLATE ®

It's hard to find a Heidelberg in any of our showrooms *without* a SOLD tag. This speaks for itself . . . and for the new Heidelberg owners, too. For they're plenty *sold* on the Heidelberg . . . and with good reason.

They watched the Heidelberg perform . . . then asked Heidelberg owners. They found Heidelberg fastest in make-ready, press-run, clean-up, and change-over . . . easily able to handle 15 or 16 run-of-the-hook jobs a day. The Heidelberg takes all classes of stock—from onion skin to 10-ply cardboard—with speed and precision. In short, they sold themselves that the Heidelberg is the finest, fastest, most versatile press in the world.

You, too, will be sold on the Heidelberg. Let us arrange for a FREE DEMONSTRATION. Mail coupon.

Distributors of Heidelberg Automatic Presses

HEIDELBERG EASTERN SALES CO.
45-45 Thirty-Ninth St., Long Island City 4, N.Y.
227 North 3rd St., Columbus 15, Ohio

HEIDELBERG WESTERN SALES CO.
118 E. 12th St., Los Angeles 15, Calif.

HEIDELBERG SOUTHERN SALES CO.
120 N. Sampson St., Houston 3, Texas

ORIGINAL HEIDELBERG

Send coupon to your nearest distributor
Check either or both squares

I want literature and CHECK CHART comparing all platen presses ☐
Call me to arrange a FREE demonstration. ☐

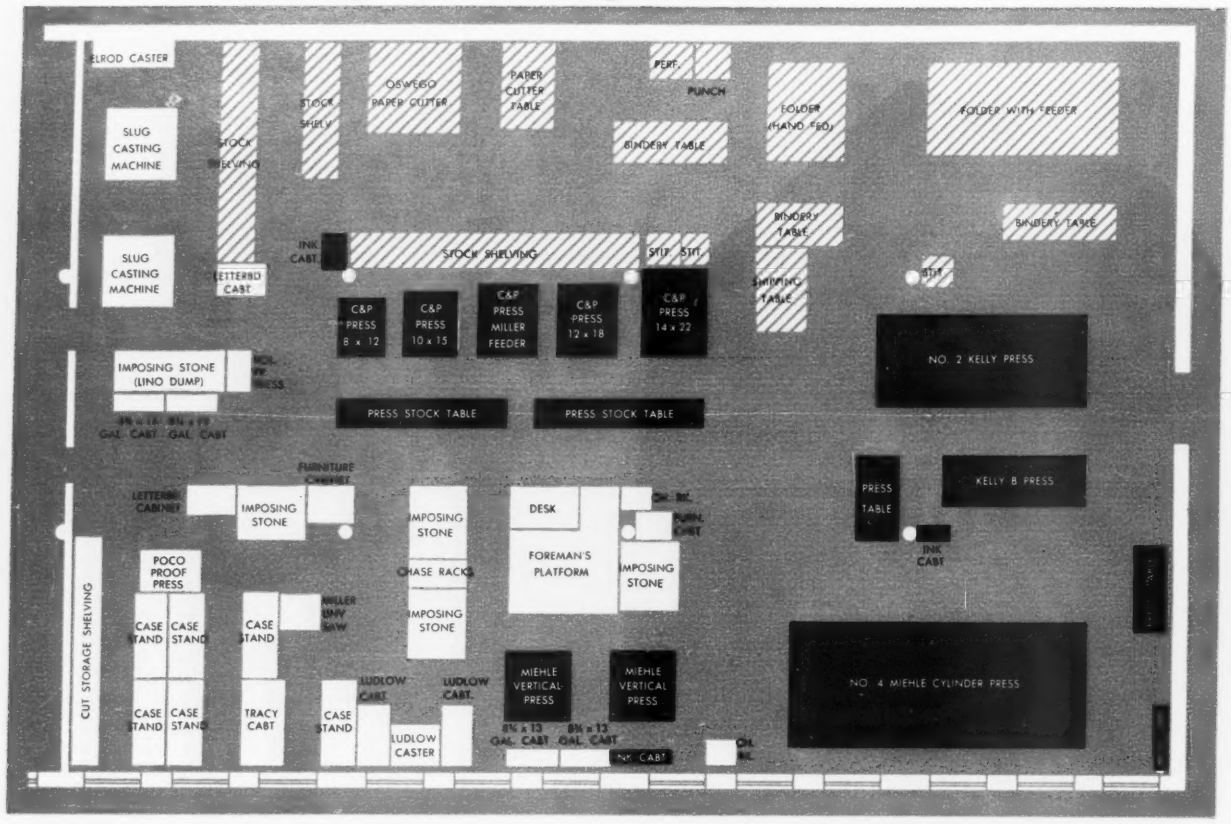
NAME_____

FIRM_____ PHONE_____

ADDRESS_____

CITY_____ STATE_____

1. What's wrong with this plant?



• *A complete new layout is needed*

This printing plant is typical of the job shop which has grown through the years. As new equipment became necessary, it was placed in available space, without much shifting of existing machinery. As a result, the layout does not provide for over-all efficiency of operation. Major pieces are awkwardly placed, floor space is wasted. Trucking aisles are inadequate. Consequently, the full potential of the plant, both production-wise and profit-wise, is not being realized.

ATF DIRECT-LINE LAYOUT

The key to printing plant efficiency

Routing work through your printing plant should be as simple as ABC. With direct-line layout, it is.

From office to composing room, through pressroom, bindery, to delivery, direct-line layout provides a continuous flow of work in process from one end of the plant to the finished product at the other end. Such direct-line layout minimizes back-tracking. It facilitates scheduling and control. It reduces stock-handling and conserves floor space for work in process. Bottlenecks are eliminated. Supervision is easier. All-in-all, direct-line layout adds up to lower costs of production and increased productive capacity. To you, it means maximum profits at minimum costs.

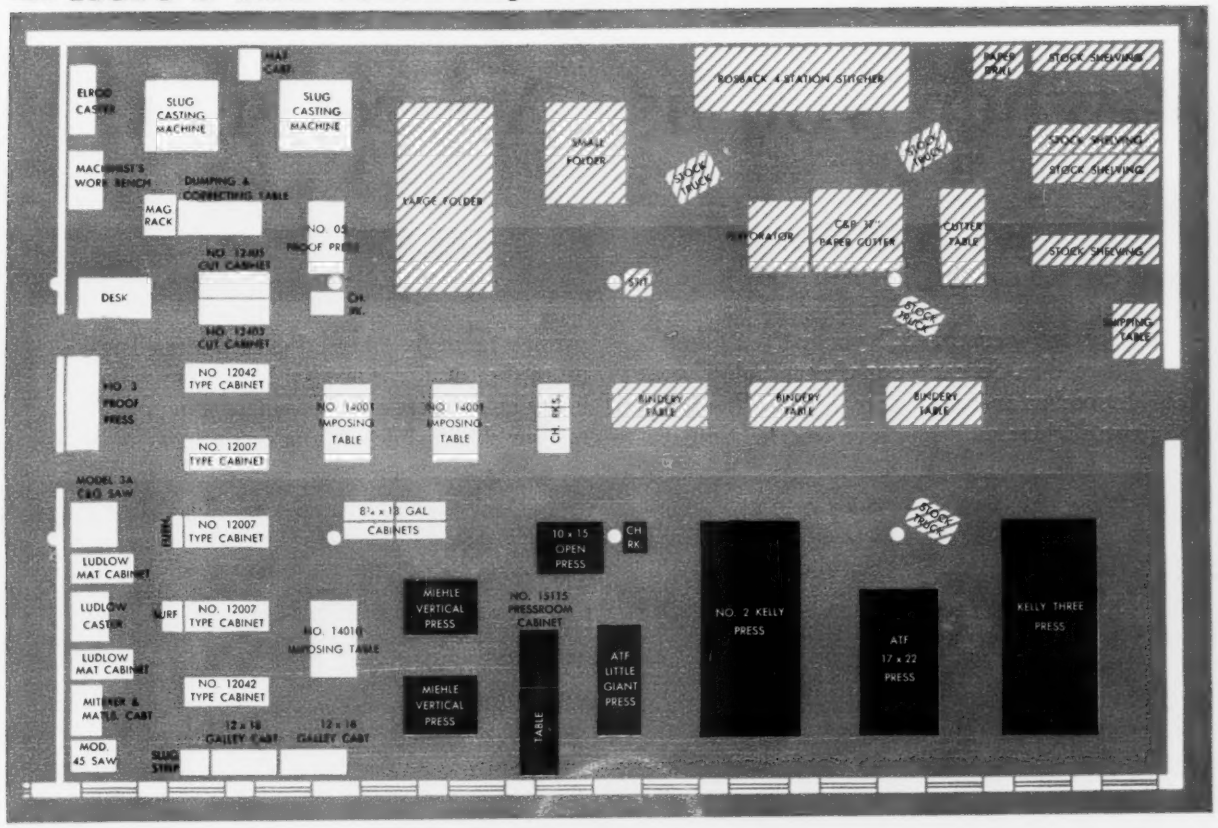
ATF provides free engineering layout service for purchasers of ATF printing presses and printing equipment. Write for our free booklet, "Direct-Line Layout." AMERICAN TYPE FOUNDERS, *a subsidiary of Daystrom, Inc.*, 200 Elmora Ave., Elizabeth, N. J.

ATF

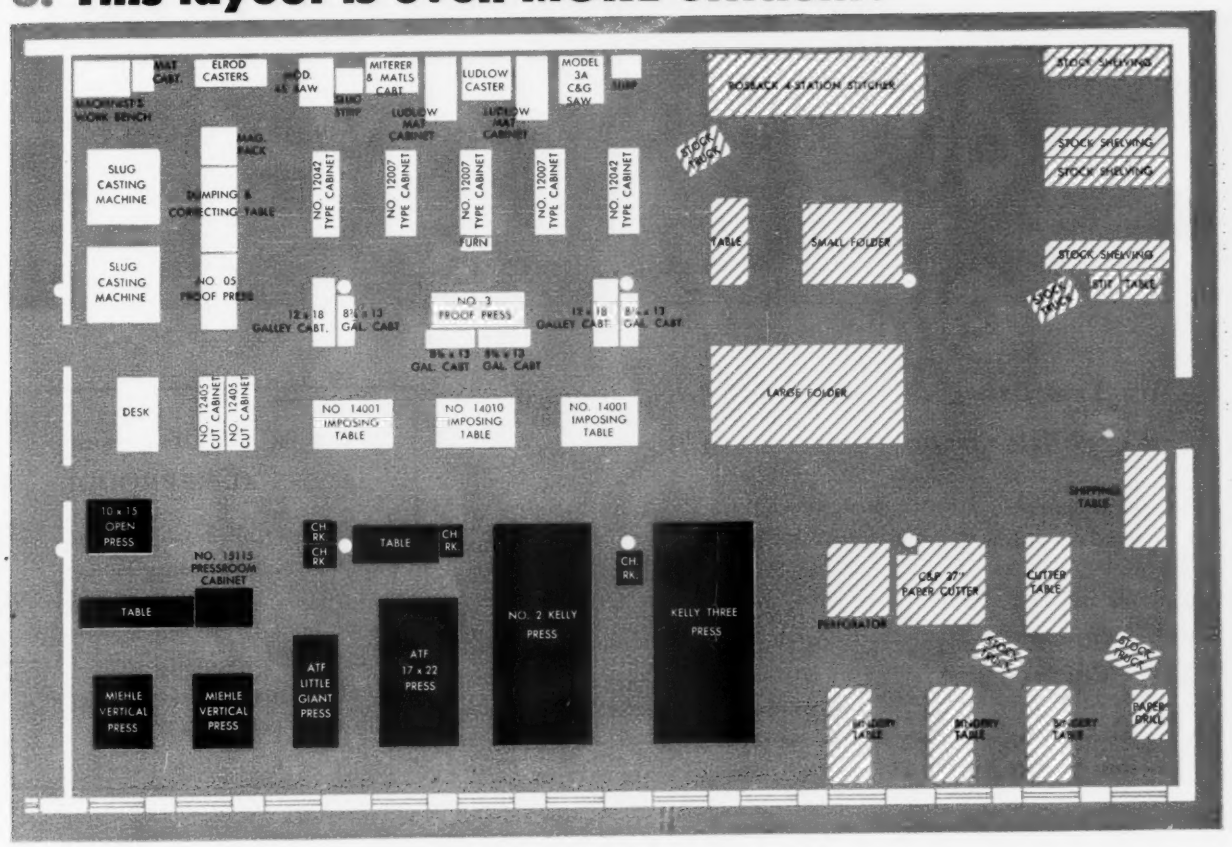
Better, more profitable printing from the widest line of processes

GRAVURE . . . LETTERPRESS . . . OFFSET

2. Here's one solution, but...



3. This layout is even MORE efficient!



ATF Plant Layout Engineering Service has been available for 39 years

Everybody benefits when you use Ansco Film!

Your stripper can tell you why *he* prefers Ansco film. So can your photographer, your dot etcher and your plate maker. Though no two of these men may give you the same reasons for favoring Ansco, their answers all add up to the total reason why Ansco film makes it easier to keep quality and production *up* in your shop, while holding costs *down*.

Are You Using These Special Advantages of Reprolith Ortho Type B Thin Base Film?

This special-purpose film combines the advantages of the high speed and full orthochromatic sensitivity of regular Reprolith Ortho Type B with the special advantage of being coated on a *low-shrink safety base only .0035" thick!*

This thin base feature makes it the ideal film for half-tone positives, overlays, strip-ins, and for making lateral reversals.

Like all Reprolith films, it is noted for its wide developing latitude, its clarity in white areas, fine dot etching qualities and its steep gradation.

For Best Results Develop in ANSCO REPRODOL

This special developer produces the maximum density and high contrast needed for fine photomechanical work. Order Reprodol in 2- or 10-gallon sizes, laboratory-packaged for your protection.

IN THE GRAPHIC FIELD IT'S ANSCO

ANSCO, Binghamton, N. Y. A Division of General Aniline & Film Corporation. "*From Research to Reality.*"

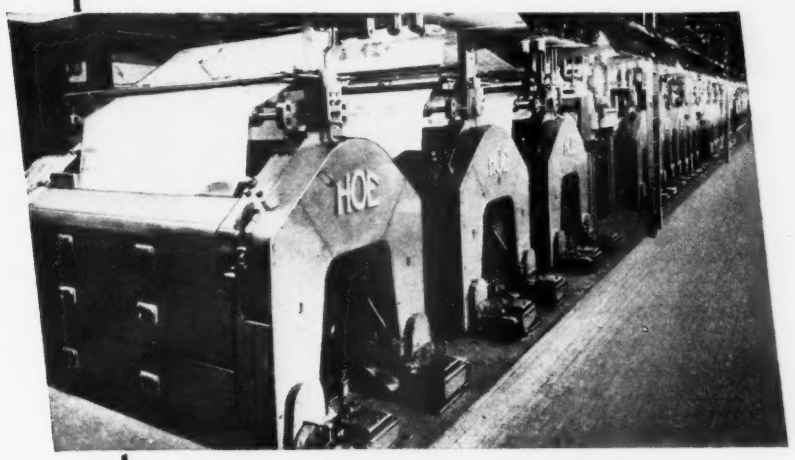
a modern press

FOR YOUR MODERN PLANT

When planning a more modern plant for the expanding needs of your newspaper, naturally you will want to select a readily expandable press that can take care of your requirements for years to come.

One of the major factors kept in mind in developing the HOE COLOR-CONVERTIBLE PRESS was to design it so that the publisher does not have to invest initially in any more printing units, or color mechanisms, than necessary for his immediate needs — but which may easily be expanded, whenever required, to handle increasing circulation or greater demands for color.

That this advantage has been widely appreciated is shown by the large number of leading newspapers throughout the United States, Canada and Latin America which have purchased HOE COLOR-CONVERTIBLE PRESSES.



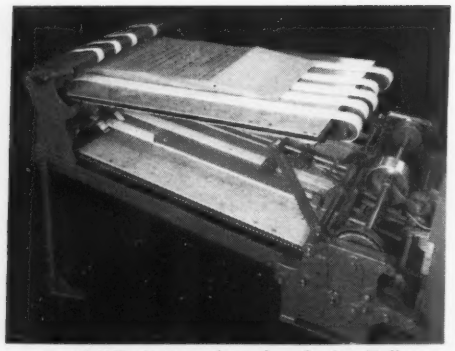
PRESSROOM OF PHILADELPHIA INQUIRER

BUILDS THE BEST HOE

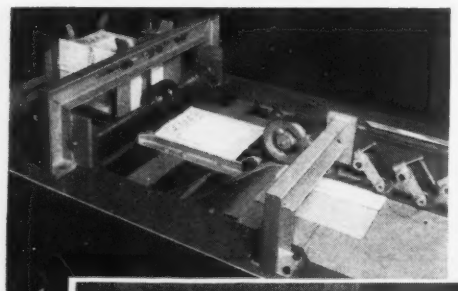
R. HOE & CO., INC.

910 East 138th Street • New York 54, N. Y.

BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO • BIRMINGHAM • PORTLAND, ORE.



ABOVE: Vacuum drum sheet feeder. (Roll feed optional.) BELOW: Hopper-type magazine feeder, continuous loading.

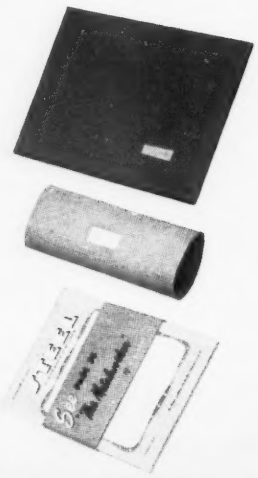


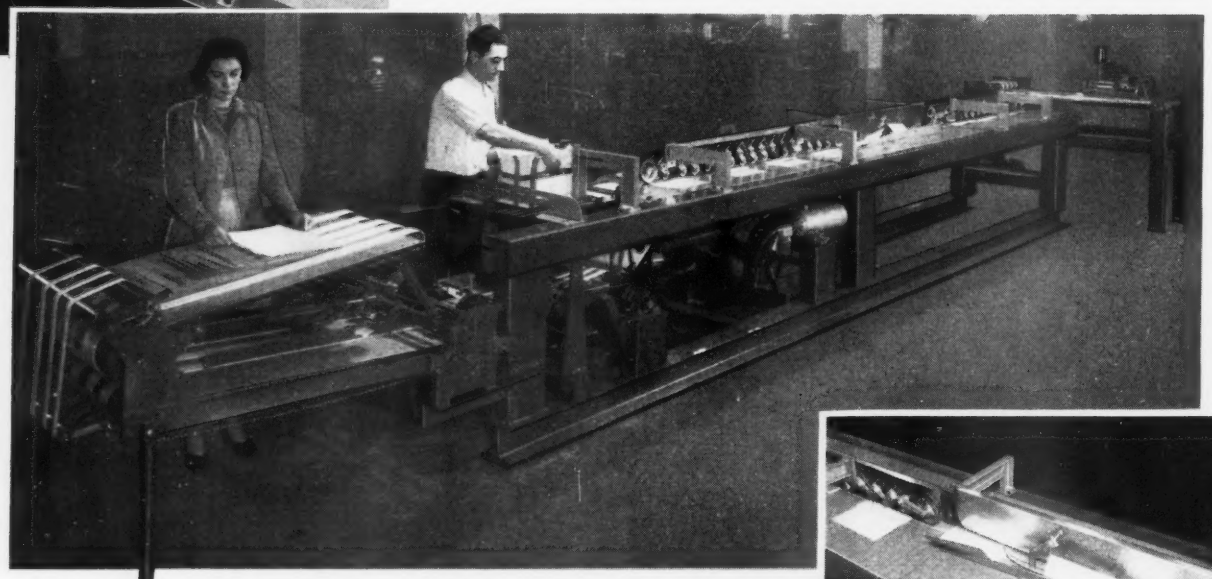
HERE'S THE

Modern, High-Speed, Economical

WAY TO

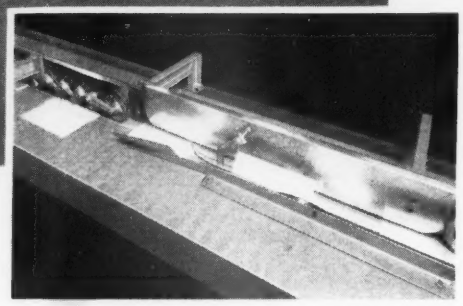
FLAT-WRAP
FOLD-WRAP
BAND-WRAP





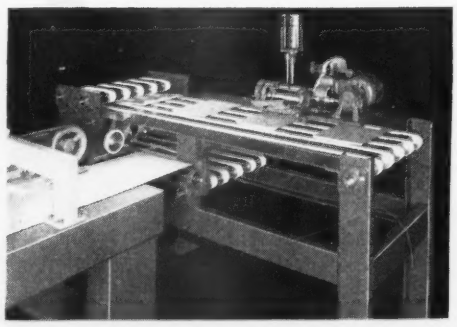
A BOON TO MODERN MAGAZINE CIRCULATION

Say goodbye to old-fashioned high-cost, hap-hazard mailing methods. Get your periodicals out on time ALL the time . . . neatly wrapped, positively sealed, correctly addressed the low-cost, high speed MAGNACRAFT way . . . either on the Lease or Purchase Plan! Scores of leading journals have vastly improved their circulation procedures with this modern fast-action equipment. So can you! Best of all . . . the price of the MAGNACRAFT "Fast-wrap" Mailer is far less than you probably expect . . . greatly lower, in fact, than supposedly similar machines. And it pays for itself F-A-S-T! Remember, it flat-wraps, fold-wraps, band-wraps AND addresses! A great unit . . . a great cost cutter.



FOLDING flairs easily adjusted for any size magazine.

ADDRESSER: Choice of cut labels or Dick strip . . . applied to fold-wrap or flat-wrap.

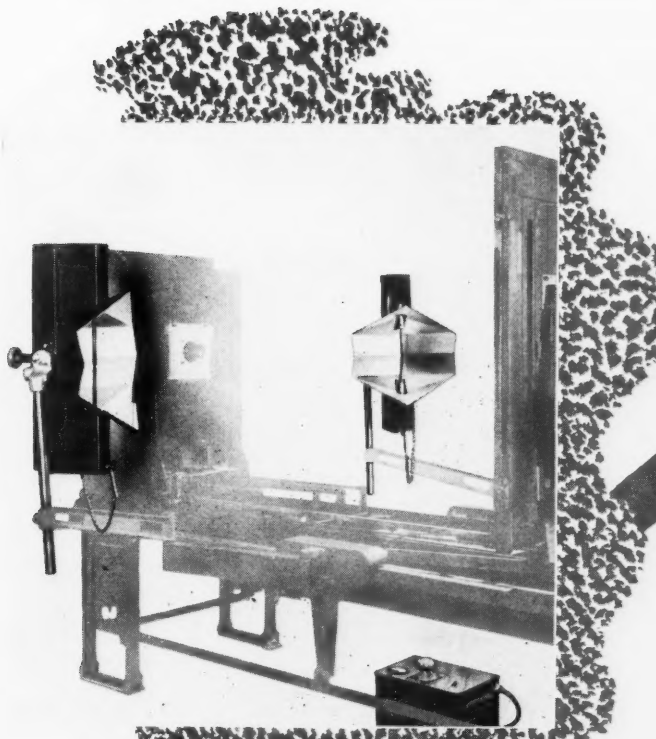


Write for Descriptive Literature

Magnacraft MANUFACTURING CO.

3138 West Chicago Ave. • Chicago 22, Ill.

THIS ONE MACHINE DOES IT ALL . . . and Addresses, too!



Enjoy All the
Money-Saving Advantages
of the
New, Low-Cost

GRAFARC CHALLENGER

Fully Automatic High Intensity

CAMERA ARC LAMP

This vertical trim lamp burns at 75 amperes and 23 volts at the arc. The arc current controls the carbon feed so that the illumination and color temperature are constant. Uniform illumination is provided on work of any size, with extreme steadiness of light volume. The Strong Grafarc time-proven method of compensation for line voltage variations has been incorporated. Light in weight, the Challenger is readily mounted on the lamp support arms of any camera. Adapters are available to fit all makes of cameras. The Challenger can also be used as a printing lamp.

There are Strong Grafarc lamps designed for all photo-mechanical processes—printing lamps, camera lamps, photo-composing lamps and overhead printing lamps.

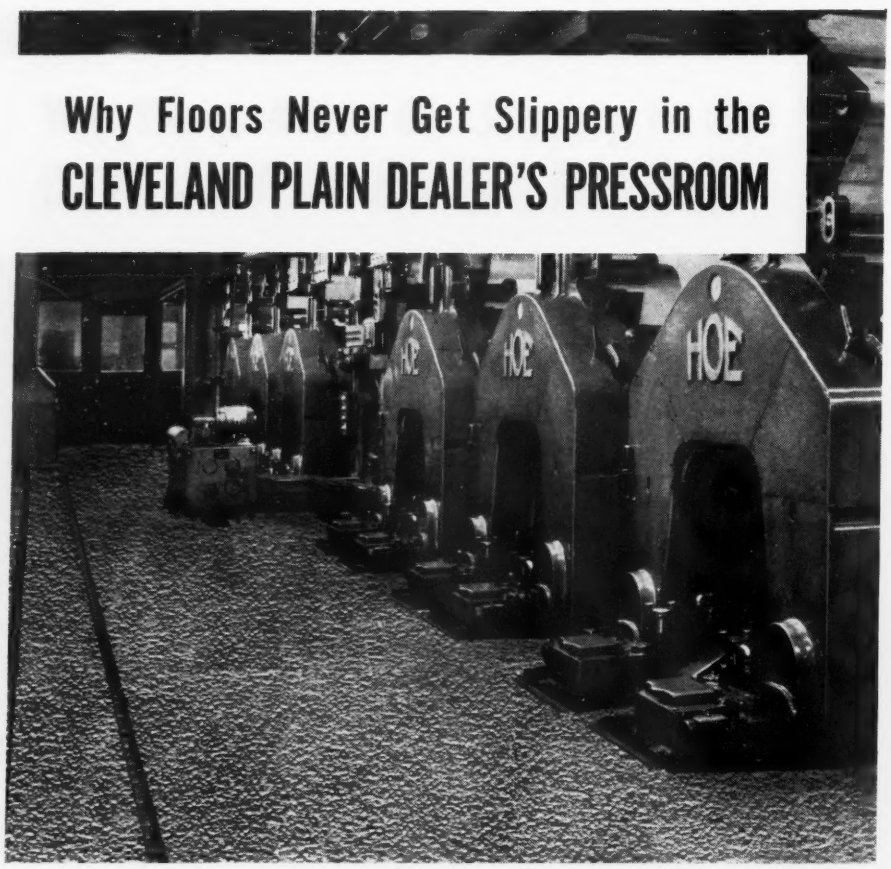
THE STRONG ELECTRIC CORPORATION
307 CITY PARK AVENUE • TOLEDO 2, OHIO

Please send free literature and prices on the new Strong Challenger Camera Arc Lamp.

NAME _____
FIRM _____
STREET _____
CITY & STATE _____
NAME SUPPLIER _____

Send coupon today for free literature and prices.

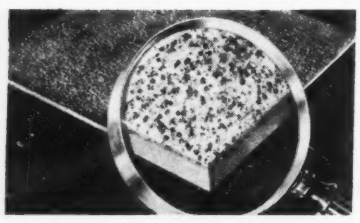
Why Floors Never Get Slippery in the CLEVELAND PLAIN DEALER'S PRESSROOM



Even accumulated ink mist and oils on the floor can't cause slipping accidents! *Reason:* A. W. ALGRIP Abrasive Rolled Steel Floor Plate safeguards the Plain Dealer's pressroom. After two years' use the Paper recently expressed its satisfaction with ALGRIP.

The truth is, wherever you install ALGRIP, accident rates *and* insurance rates are bound to decrease. For with abrasive "grinding-wheel" grain rolled densely and deeply into steel plate's upper portion, ALGRIP puts *hundreds of tiny safety brakes in every footstep.* It's virtually impossible to slip on this anti-skid metal flooring—even on steep inclines! And ALGRIP actually pays for itself in lower insurance premiums.

Start getting your *savings from safety* now. Take a moment to send for our new ALGRIP Foot-safety Booklet, AL-33. Also, ask any questions you wish; we'll be glad to answer them without obligation.



RECENT INSTALLATIONS—**Here are a few recent ALGRIP installations: Seattle Times, Seattle, Washington • Beaumont Enterprise & Journal, Beaumont, Texas • St. Petersburg Times, St. Petersburg, Florida • Washington Times Herald, Washington, D.C. • Also many other names furnished on request.**

◀ ***Magnification shows even distribution of abrasive grain.***

THERE'S NEVER A SLIP ON A. W. ALGRIP

Over 125 Years of Iron and Steel Making Experience

ALAN WOOD STEEL COMPANY

Conshohocken, Pa.

OTHER PRODUCTS: **A. W. SUPER-DIAMOND Floor Plate • Plates • Sheets • Strip (Alloy and Special Grades)**

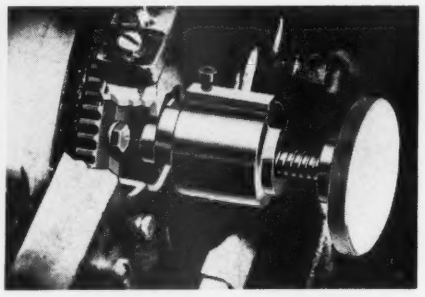
Equipment & Supplies

(Continued from Page 10)

The punch weighs 2¼ lbs. and measures 6 in. by 8¼ in. It is equipped with two back gauges and one side gauge. Tauber-Tubes are available in red, white and blue, and in a variety of sizes. Please refer to PEE No. 553 when writing for additional information.

Plate Positioning Wrench

A STATIONARY - TYPE wrench attached to the press is designed for the positioning and registering of offset plates on Series 1200 and 1250 Multiliths, according to Litho Engineering and Research. Known as the Micro-Register Wrench, it is made to fit the semi-circular opening in the side of the press opposite the plate cylinder lock-bolt.



The Micro-Register wrench attached permanently to the press for positioning and registering of offset plates on Series 1200 and 1250 Multiliths. Manufactured by Litho Engineering and Research.

The permanent device is mounted in position so that its socket is always aligned with the lock-bolt on the plate cylinder. In use, after engaging and loosening the lock-bolt, the wrench can be set to prevent slippage of the cylinder while the necessary forward or backward adjustments of the plate are made by turning the hand wheel.

A bulletin and other information is available by mentioning PEE No. 541 in your request.

Plan 'n' Print Layout Kit

FOR those plant executives who wish to employ a different kind of procedure for making plant or departmental layouts, Gross Engineering Co., Inc., has available what is called a Plan 'n' Print Layout Kit. The Kit is made in several sizes ranging from 12 in. by 18 in. up to and including 24 in. by 36 in. The case is of the appearance of a hand bag or suit case. In the lid of the case is contained scaled magnetic templets representing office furniture and equipment. Each is colored and numbered for identi-

(Continued on Page 22)

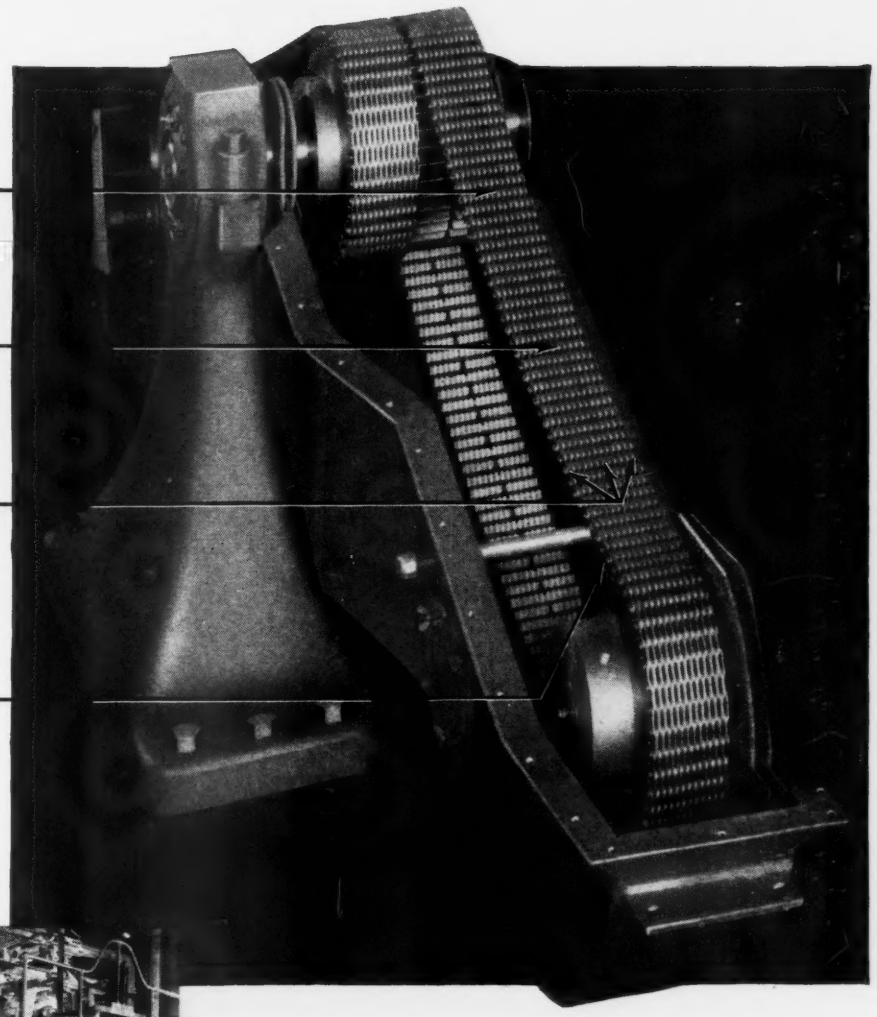
Choose the proved way
to transmit high hp at high speeds

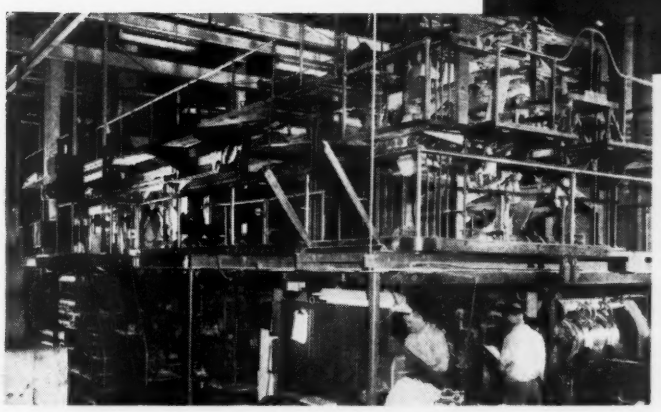
Silverstreak Silent Chain does the job with a single strand—eliminating the dangers that come with one or more belts in a group carrying more than their share of the load.

Husky Silverstreak metal link construction combines the ability to carry heavy overloads with the resilience that really absorbs shock.

"Pull" is distributed equally across Silverstreak Silent Chain. No possibility of uneven running—slapping.

Silverstreak Silent Chain doesn't rely on tension to get pulling power—chain meshes with teeth—gives POSITIVE drive—no chance for slip.





Four 125 hp Silverstreak Silent Chain Drives power this press on which 46% of all "Readers Digest" copies are printed. Chain speeds of 4600 fpm are maintained 24 hours a day, six days a week.

LINK-BELT

SILVERSTREAK SILENT CHAIN DRIVES

LINK-BELT Silverstreak Silent Chain Drives are slip-proof . . . slap-proof . . . shock-proof

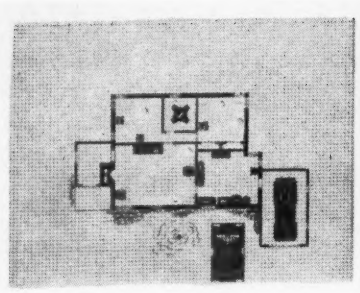
For the finest in modern power transmission, use Silverstreak Silent Chain the next time you have a demanding drive problem. These long-life drives—more than 98% efficient—have met every test for rugged service. There are many applications where Silverstreak Silent Chain has been in continuous operation for 15 years and more . . . without replacement . . . with only routine attention. Call the Link-Belt power-transmission engineer in the office near you for any information you require.

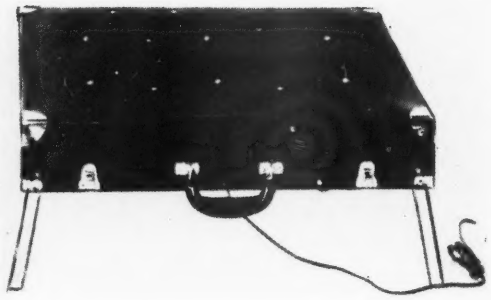
LINK-BELT COMPANY: Plants: Chicago, Indianapolis, Philadelphia, Atlanta, Houston, Minneapolis, San Francisco, Los Angeles, Seattle, Toronto, Springs (South Africa), Sydney (Australia). Sales Offices, Factory Branch Stores and Distributors in Principal Cities. 12,883

Equipment & Supplies

(**Continued from Page 20**)

fication. In the case of printing machinery it may be necessary to cut out your own templets or perhaps they can be obtained from sponsor. On a plan board inside the kit is a cross-hatched ¼ in. to the ft. scale transparent plastic sheet. It is held to a metal surface by magnets. In preparing an equipment layout, the basic floor plan is drawn with grease pencil or Scotch tape on the plan board. The equipment templets can then be arranged as desired. After a tentative plan has been completed a permanent record is obtained in the following manner: A sheet of sensitized paper is placed under the grided plastic sheet on the plan board.





Violet ray lights installed in the other half of the kit case are placed over the plan board and exposed through the plan board to the paper. After 3 min. exposure, the light source and the paper are removed. The exposed sensitized paper is now placed on a flat surface. It is rubber with a cotton swab dampened in developer fluid. Thus the developed paper becomes a permanent layout which can be used for reference purposes, especially if other variant layouts of the equipment are to be studied. Multiple copies of any layout can also be made. When writing for further information please mention PEE No. 557 in your request.

SAVE ON EVERY LOCK-UP JOB

with **Challenge®**

HI-SPEED QUOINS

CHECK THESE PROFITABLE FEATURES

Take a pencil and paper and roughly estimate the money you could save by cutting down lock-up time *75% to 80%*. Then add the other advantages and your answer will be the reason why CHALLENGE HI-SPEED QUOINS are one of the most profitable investments in the graphic arts field today.

These self-contained, self-locking HI-SPEED QUOINS, which individually do the work of two to eight ordinary quoins, are available for foundry or press forms in seven lengths from three to twelve inches.

If you're interested in reducing shop expense, take it from one of our customers who compared HI-SPEED QUOINS with ordinary quoins — *"On the basis of cost, there's no comparison."*

ASK FOR A DEMONSTRATION

Your Challenge dealer will be glad to show you the unique operation and details of the HI-SPEED QUOIN. Call him in today.

DIRECT EXPANSION—CHALLENGE HI-SPEED QUOINS expand directly with no damage to type, slugs, furniture or chase.

NO REGLETS REQUIRED—Since expansion is direct and lateral motion eliminated, no reglets are needed.

SELF-CONTAINED—Each HI-SPEED QUOIN is complete — there's no time wasted searching for half a quoin.

QUICK-ACTING—Operated by a single key, the HI-SPEED QUOIN permits locking or unlocking side or end of form with one quick twist.

GUARANTEED—No risk involved — you get a full year's guarantee against defective workmanship or material.

736

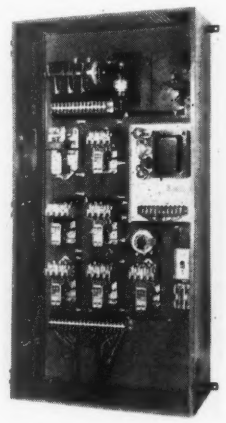
THE CHALLENGE MACHINERY COMPANY

Office, Factories and Show Room: GRAND HAVEN MICHIGAN

TRADE-MARK ®

Pantone Rotary Press Drive System

THE Pantone Rotary Press Drive System for operation of Newspaper and magazine rotary presses consists essentially of a constant speed motor of any manufacture of suitable horsepower in the design of which is included Eddy Current Clutch and Brake Device and a Speed Control Panel. For the main part,



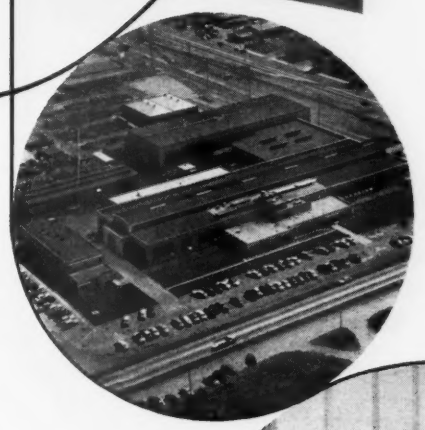
View of Pantone Engineering & Mfg. Co.'s Speed Controller used in conjunction with constant speed motor combined with Eddy current clutch and brake device for driving controlling the speed of newspaper and magazine rotary presses.

the Speed Controller consists of an electronic section for the motor clutch and brake, a motor driven rheostat, and various relays for the speed sequences. All of these elements are front connected in a steel cabinet 24 in. wide, 48 in. high and 10 in. deep. Where the speed sequences are the same, the Controller for a 5 h.p. drive and for a 200 h.p. drive are the same. This equipment has been developed by Pantone Engineering & Mfg. Co.

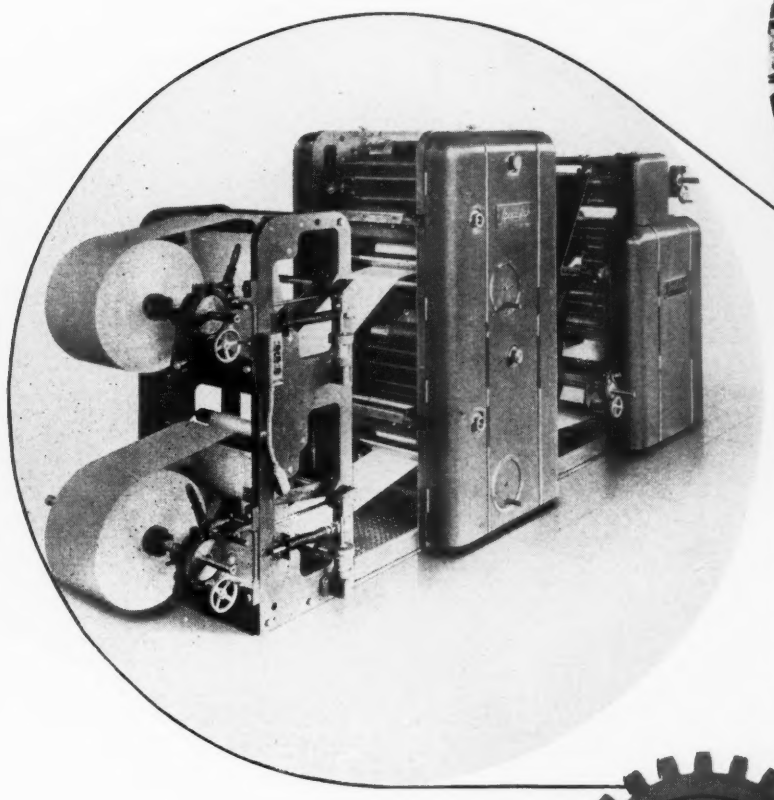
Using one Speed Controller, two or more drives may be run in parallel to drive the same load. When so operated, the drives will share the same proportion

(*Continued on Page 30*)

SPEED-FLEX IS ON THE MARCH!



Soon there will be a Speed-Flex for every manifolding requirement! The extensive facilities of Western Gear Works linked with the printing press know-how of Orville Dutro & Sons, Inc., are blended to render the best service in the printing industry. Speed-Flex presses are engineered for speed, convenience and endurance. They're streamlined thoroughbreds that win the race against competition. Keep your eye on Speed-Flex! New and revolutionary equipment is on the drafting board. Equipment that may affect every form of commercial printing. The printing industry is going rotary! Plan ahead! Plan with Speed-Flex!



Illustrated is the Model B Speed-Flex Press. Still the standby for the commercial printers making their first investment in the rotary field. With ruggedness, simplicity and incomparable speed, the Model B is deadly competition for carbon interleaved forms and all types of form printing. With a Model B, you can process your ordinary jobs more profitably while you are building up your specialty line.

direct inquiries to

Orville Dutro & Son, Inc.
PRINTING PRESS SALES AND SERVICE

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RICHMOND 9377

NEW YORK, N.Y.
1133 BROADWAY
OREGON 5-9014

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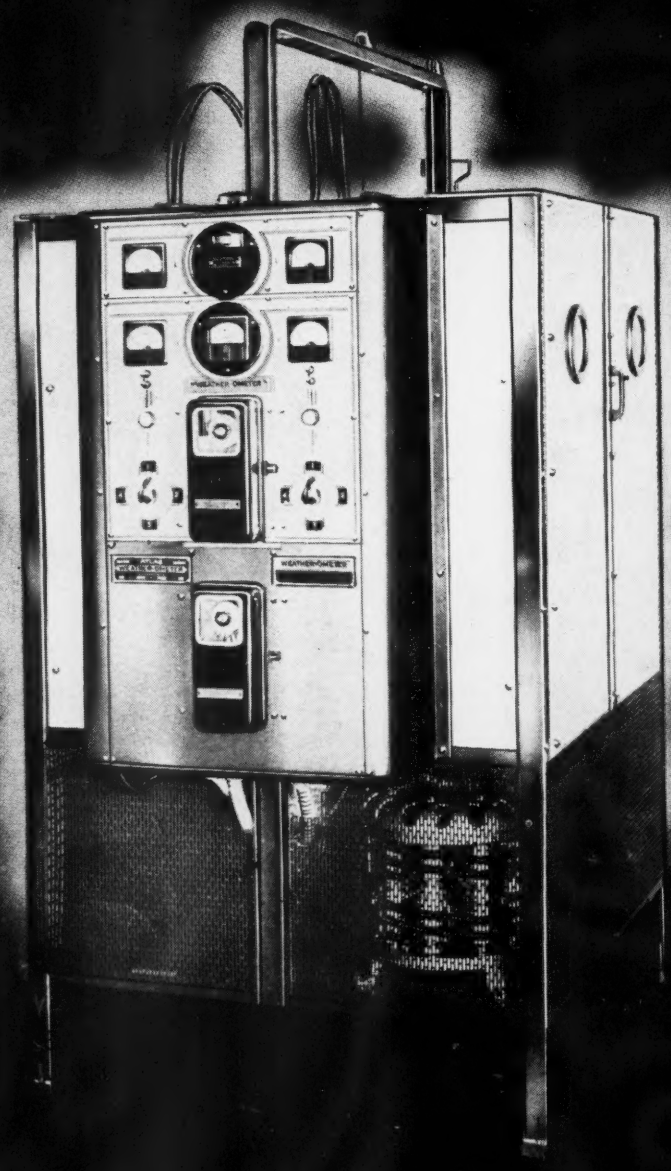

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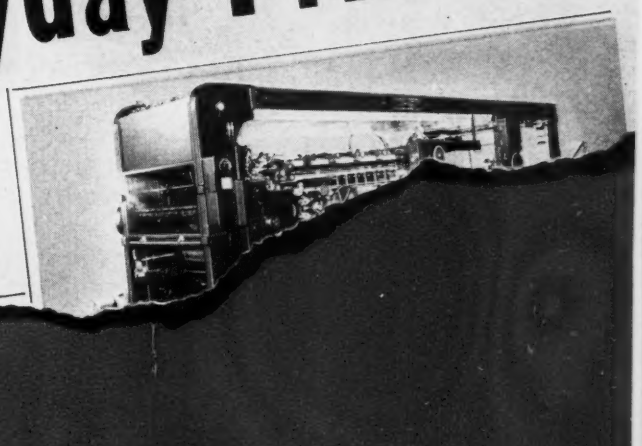

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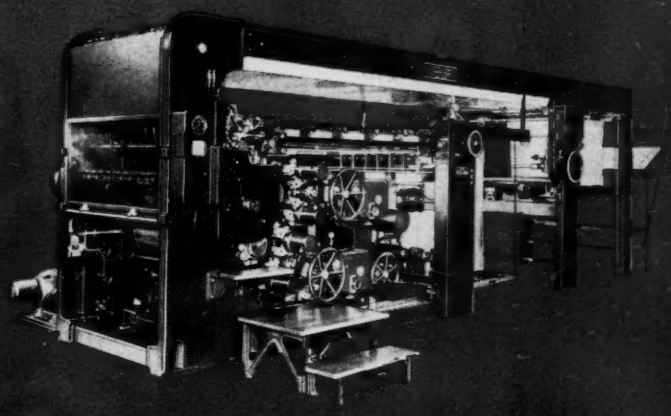

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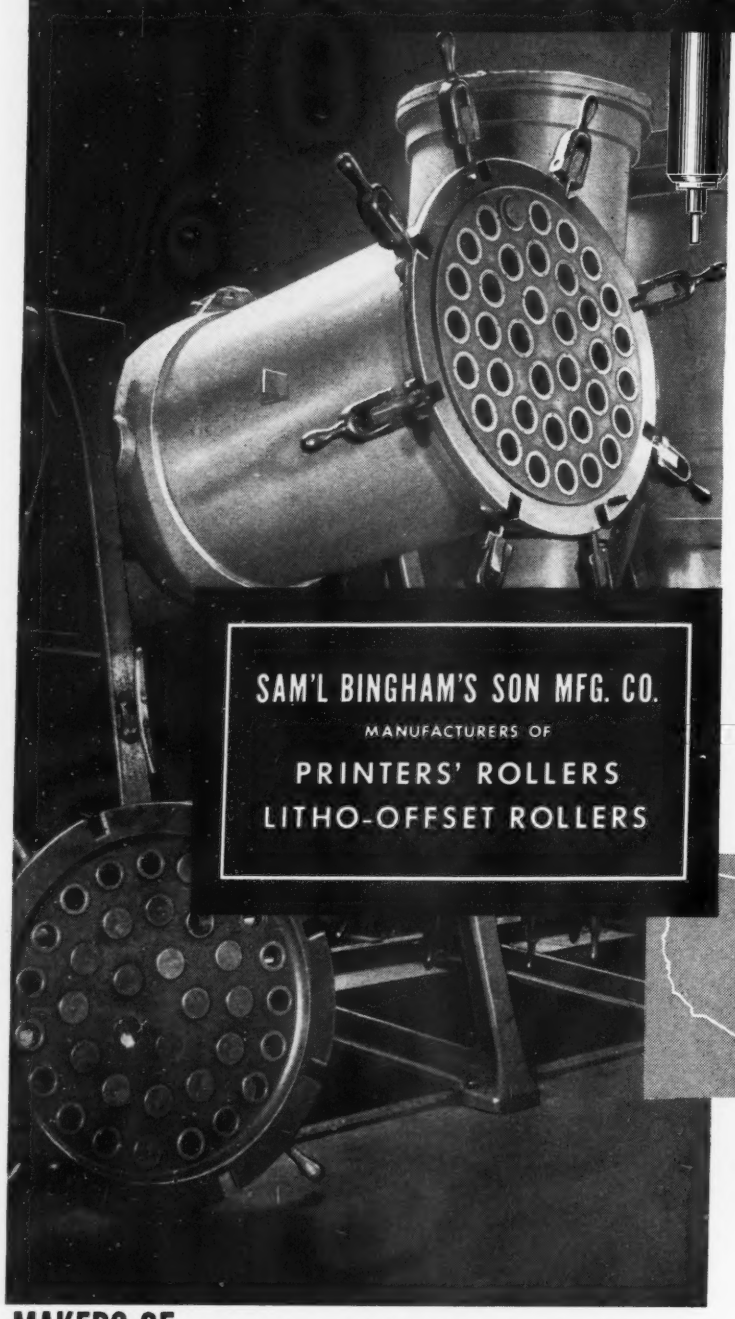

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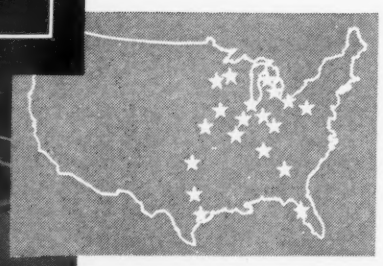

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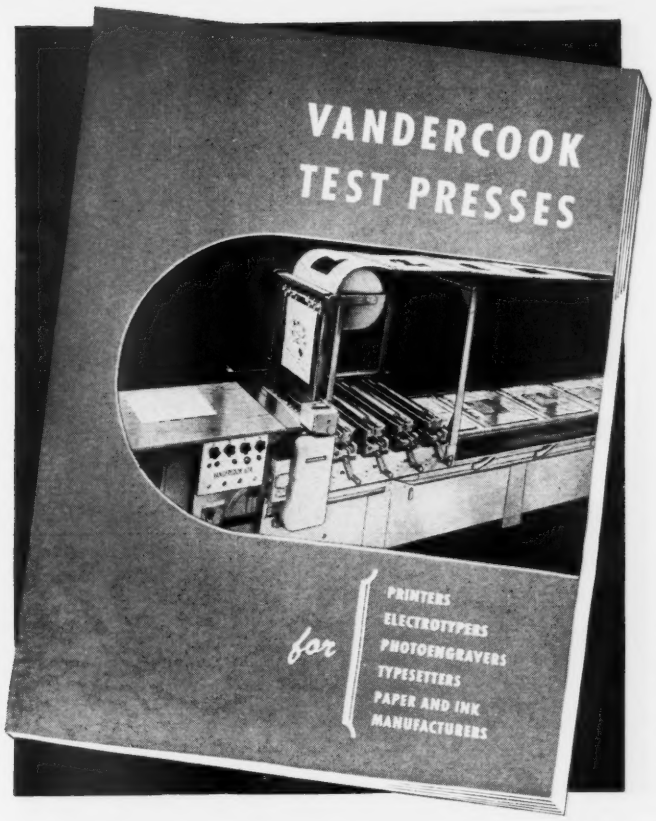
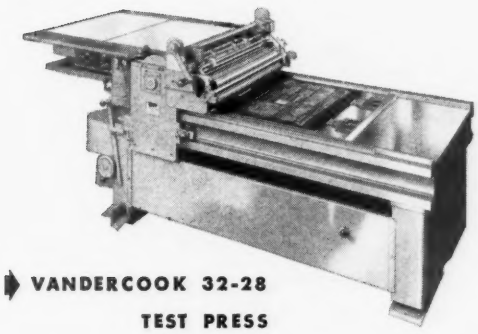
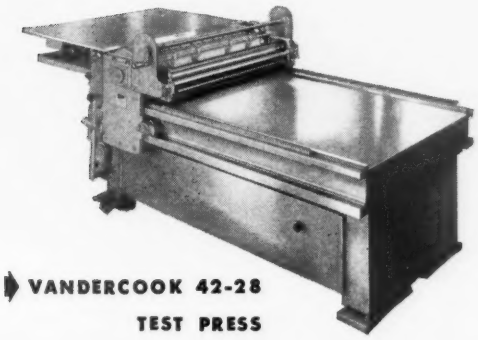


This catalog is an excellent example of the better quality printing that can be produced at lower cost by using Vandercook Minimum Makeready Method.

VANDERCOOK 219AB
TEST PRESS



VANDERCOOK 32-28
TEST PRESS



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See for yourself the *Improved Quality* any printer can now obtain — at *Big Saving in Starting Time* — by using Vandercook's *Minimum Makeready Method* . . .

No matter how closely you study the reproduction of the many fine screen halftones, the tints and the type in this 24-page book, we know you will agree that the over-all presswork is far superior to the average good commercial quality. And yet, the book was printed at normal press speed *with a total makeready for each form that did not exceed .002″*.

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Equipment & Supplies

(Continued from Page 22)

of the load at any press speed. Sponsor states this drive may be run in parallel with drives of other manufacture so it will take a fixed part of the load at any press speed.

The following features of the Pantone Rotary Press Drive System are mentioned by manufacturer: (1) Stepless and controlled acceleration; (2) Adjustable rate of deceleration; (3) Adjustable jogging and threading speed; (4) Multiple station, full automatic, remote speed control; (5) "Safe" while working on the press, and (6) Automatic reset after power failure. A number of optional features are also available, one of which is inter-connection of any other press equipment such as automatic web tension devices, paster devices, web break detectors, and the like.

Two remote multiple pushbutton control stations are available. The four-button control station is provided with buttons for Increase, Decrease, Jog and a Stop button with locking latch. Depressing the Increase button will increase the speed of the press. Releasing the Increase button permits the press to run at the speed attained at the time of release. Further depression of the Increase button will further increase the speed of the press until the full geared speed is reached or until the pre-set press top speed is reached.

Operation of the Decrease button will be the same to decrease the press speed to a full stop. Depressing the Jog button permits the press immediately to come up to the pre-set threading speed, and the press continues running at this speed as long as the Jog button is held in depressed position. Upon releasing the Jog button the press is brought to a stop. Momentary depression of the Stop button will cause the press to come to a full stop from any operating speed.

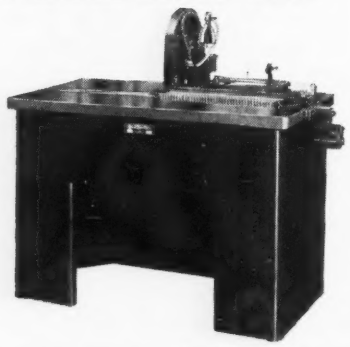
Latching the Stop button on any station will inactivate the control circuits so that the press cannot be started until the Stop button is freed by releasing the latch. While the Stop button is latched the press will be "safe" for plating the cylinders or any other press work.

Operation of the five-button control station is the same as the four-button station except no latch is provided for the Stop button. Instead, a Safe-Run Selector is provided at the top of the control station box. When the press is stopped and the Safe-Run selector on any station is thrown to the Safe position, the press will be "safe"—that is, the press cannot be started until the Safe-Run selector on that station is thrown to the Run position. Should the Safe-Run selector be placed in the Safe position when the press is running, then the press speed cannot be further increased through depressing the Increase button. At this time, operation of the Decrease and Stop buttons will be normal. After the press has come to a stop it cannot be started until the Safe-Run selector knob has been placed in the Run position. Please mention PEE No. 552 when requesting further information.

here's how Rouse REDUCES YOUR TIME COSTS

CUT A FULL GALLEY OF MIXED MEASURES SLUGS IN ONLY 35 SECONDS

Rouse BAND SAW



No more gauge setting! No more reclamping or measuring! That's why the Rouse Band Saw offers you by far the most economical way to accurately cut slug lines to different measures in the shortest possible time. No other machine nor method can even come close to this achievement.

If you operate one or more linecasting machines on variable measure composition, the Rouse Band Saw will do the work of hours in minutes. Expensive time saved will be unusually great in work requiring frequent changes in line measures, such as ad work, catalog runaround work, etc.

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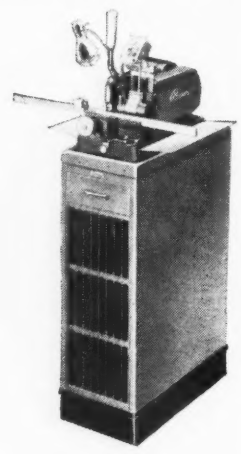
Write for your copy TODAY!

CUT 1000-1200 ACCURATE MITERS IN ONLY 1 HOUR

Rouse POWER MITERER



If you need miters in either small or large quantities, no other machine nor method can turn out anywhere near as many perfect joining miters from strip material. That's how the Rouse Power Miterer can slash your time costs by doing work in minutes that now takes hours. It quickly pays for itself in expensive time saved.

From the smallest job shop up to the largest plant, only Rouse makes a Power Miterer for every type of use. Can be bought as a bench model or with any other equipment you wish.

Virtually every printing plant in the world uses one or more Rouse Time-Saving Products for Printers

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MITERING MACHINES
LEAD and RULE CUTTERS
COMPOSING STICKS
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SLUG CLIPPERS
BAND SAWS

ROUSE PRODUCTS—THE STANDARD OF THE WORLD FOR 50 YEARS

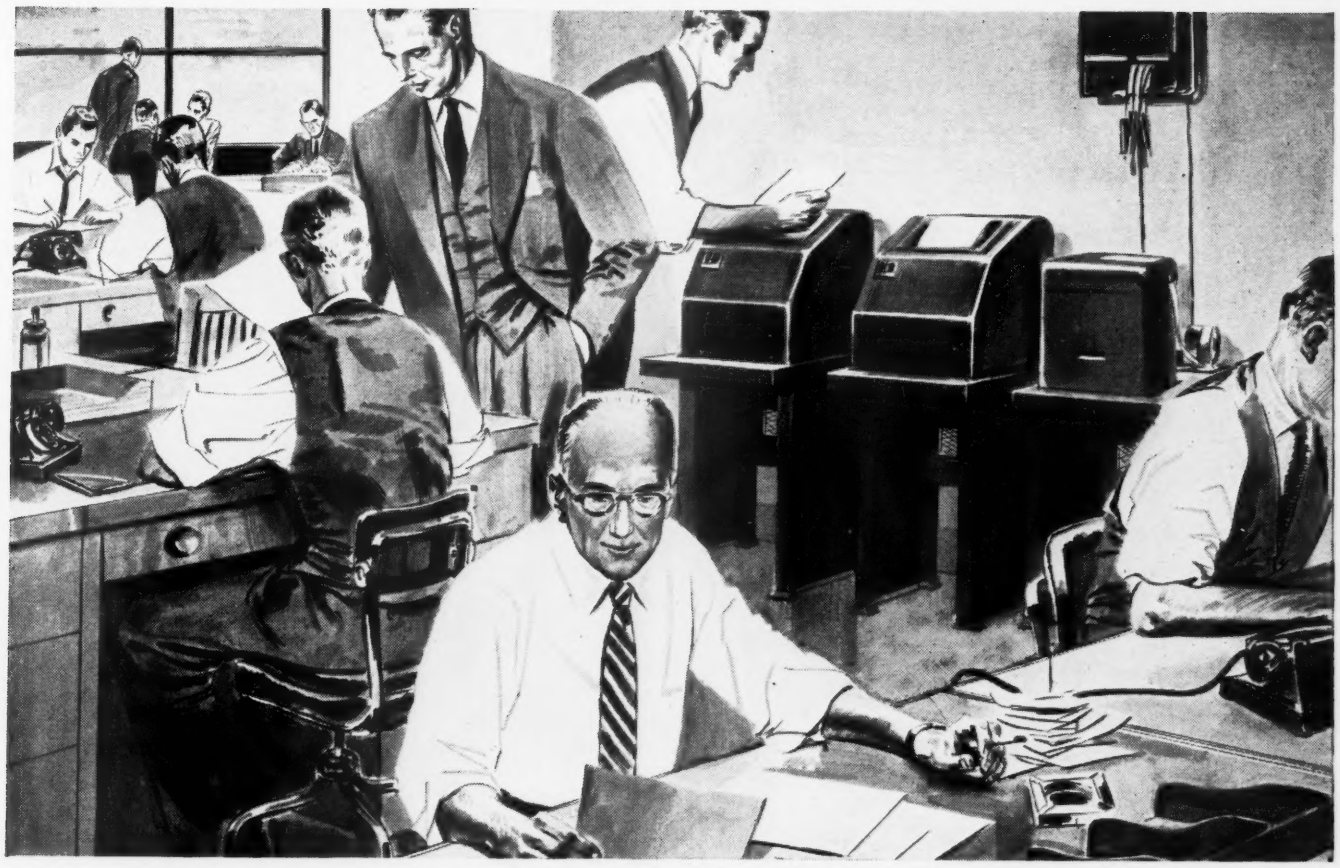
Tri-Dimensional Scale Models

THE advantages of using tri-dimensional scale equipment models in planning a new plant layout or improving an existing arrangement are listed in an eight page bulletin prepared by the Model Planning Co. Several illustrations are used in the Bulletin to show some of the layouts different firms have worked from in planning equipment arrangements. According to Model Planning Co., the three-dimensional scale models permit viewing the plant's operations in one glance. Copies of this bulletin are available and may be obtained by mentioning PEE No. 544 in your request.

Tape Dispenser Bulletin

NEARLY 50 dispensers and taping machines designed for use with the more than 200 Scotch pressure-sensitive tapes are illustrated in an eight page bulletin prepared by Minnesota Mining and Mfg. Co. Included are hand dispensers; stationary dispensers; portable, heavy duty and desk dispensers; definite length dispensers; apron tapers; standard job applicators; and custom

(*Continued on Page 76*)



Monitor Printer and Reperforator as used in the city room of a typical wire service subscriber.

800 Newspapers Now on TELETYPESETTER Circuits!

Already more than 800 newspapers are getting their daily state and national wire reports by means of press association Teletypesetter circuits. And those that use Teletypesetter's automatic linecasting method in conjunction with the wire services have been *making* news as well as printing it. For when you give your readers *faster and better* coverage and do it at *lower cost*, that is news!

FASTER AND BETTER? When an earthquake shook California last year, some Coast dailies were getting the news into type one minute after the story broke. As press association tape came into the city room by means of a Teletype reperforator, it was fed automatically into a Teletypesetter operating unit attached to a linecasting machine. Driven automatically by Teletypesetter, the composing machine turned out the type in the shortest possible time. Some editors were able to read copy from the galley proofs and go right into page make-up.

AT LOWER COST? Whether the news is routine or a bulletin, Teletypesetter offers you greater economy in type production. Don't forget, with Teletypesetter both agate and straight matter roll out at the maximum set speed of the composing machine —up to 500 lines an hour in some cases. One publisher who has tried the Teletypesetter tape-to-type method reports that his production costs have dropped from $1.97 to $1.47 for each column of type locked up in the chase.

If you'd like to know how Teletypesetter can help you produce more *type in* less *time and at* lower *cost, send in the coupon today.*

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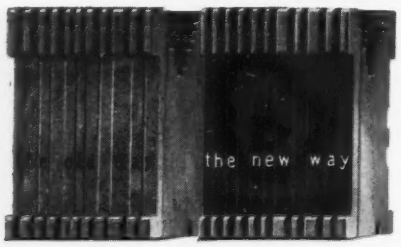

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PRINTING
EQUIPMENT
Engineer
March 1953

Sound Conditioning A Printing Plant

By Francis A. Westbrook

AN interesting feature in the new plant of Sayers Printing Co., St. Louis, is the acoustical treatment given to the ceiling and part of the side walls of the pressroom. The company specializes in commercial advertising and color work, and other quality printing. Every effort was made to construct a modern plant in all respects and that, of course, included sound conditioning.

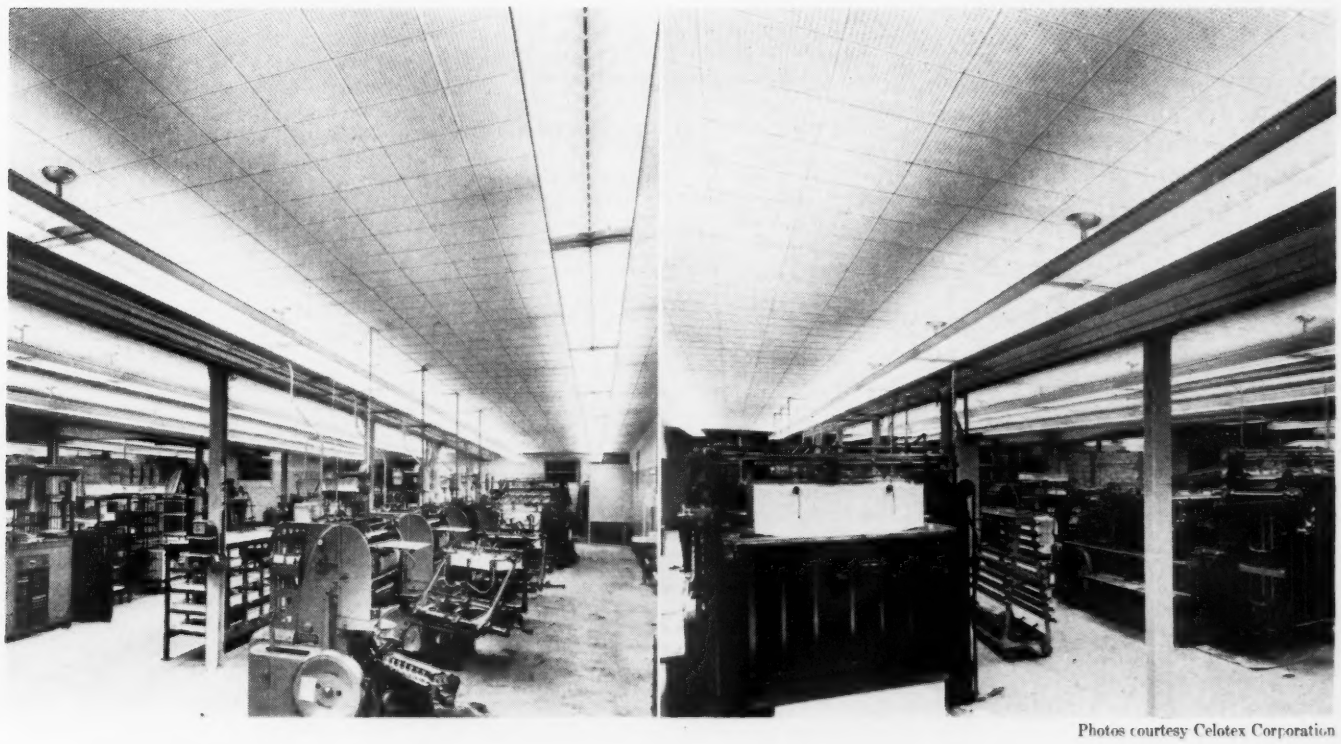
This was done for two basic reasons. Because of the one floor plan layout of the new plant, it was felt necessary to take measures to abate pressroom noise to prevent it from reaching the office to any serious extent. It was also considered desirable to reduce the ill effects of the noise on the pressroom workers.

The new plant area covers approximately 14,000 sq. ft. and the noise producing equipment includes two Miehle 29 offset presses, two Miller two-color presses, one Miller single color press, four Miehle Verticals, a Seybold cutter and a Dexter folder. When all this machinery was in operation at one time a considerable volume of noise was produced, especially since the pressroom has a 9 ft. ceiling.

Sound conditioning consisted of applying Acousti-Celotex tile to the entire ceiling and because of the relatively low headroom, the tile was also installed on the side walls as far down as the glazed wall tile. This treatment is said to largely absorb reflected sounds or the confusion of noises coming from the various machines from all directions which is so wearing on the workers. Such reflections tend to build up and create the roar so frequently heard where the rooms have not been acoustically treated, and which is much more disturbing than the noise coming directly from the machine at which the pressman is working.

When a pressroom has been acoustically treated, as at the Sayers plant, the worker hears little more than the noise coming from the press on which he is working. It does not seem as loud or disturbing in comparison with when a person is subjected to the built up reflections from the ceiling and walls. The nervous strain of the worker is reduced, less energy is consumed in concentrating on the work, there is less chance of misunderstanding verbal instructions and the lessened fatigue reduces the liability of mistakes and accidents.

Two views of the pressroom in the new plant of the Sayers Printing Co., St. Louis, where acoustical panels were installed to the ceiling and walls to reduce the noise. Because of the low 9 ft. ceiling, the Acoustic-Celotex tile was extended down the side walls to where the glazed wall tile ends. This is noticeable on the right side of the photo at left. Such an installation is said to absorb reflected sounds or the confusion of noises coming from the presses from all directions and which is wearing on the workers. The reflections tend to build up and create the roar frequently heard in pressrooms which have not been acoustically treated.



Photos courtesy Celotex Corporation

Floors Walls Ceilings

Exert influence upon production in space which they enclose—Here's an exhaustive discussion for plant executive when planning new plant with architect or engineer.

By ROBERT W. DICKERSON*
**Architect and Engineer, Cleveland O.*

FLOORS, walls and ceilings enclose space—but that isn't all. They exert an important influence on the activities which take place within that space. Floors, walls and ceilings are often taken for granted. If they are performing their purpose properly, and giving good service, they are likely not to be noticed; if not, then we become aware of them.

In terms of industrial production, their contribution to efficiency, comfort and attractiveness means a great deal. In no industrial operation is this fact more evident than in those which take place in the printing plant.

Since, for the most part, it is the surface of the floor, wall or ceiling that determines its suitability for a particular use, we shall confine our discussion to that feature. We shall assume, therefore, that all requirements of structural stability, strength, support, etc., have been met, and that we are concerned only with what we can see and feel. We shall recognize, however, that those other qualities are of basic importance, and that, in most instances, the surface can be no better than that which backs it up.

Floors, unquestionably, present some of the most important problems in the printing plant. The quest for exactly the right flooring for a particular use has been going on for a long time—and will continue, for the perfect floor has not yet been discovered. Furthermore, research and experience are continuously bringing new materials and methods to notice, and the floors which yesterday, and today, appeared to be the last word, may give place to something vastly superior tomorrow.

In Fig. 1 are shown several of the flooring constructions and materials now in general use in printing plants. In Fig. 1 are also shown a few of those which are in less common use, but which show attractive promise for the future.

Portland Cement Concrete

Floors of Portland cement concrete, in one or more of its several forms and treatments, are probably found in more printing plants than those of any other material. There are several advantages in the use of Portland cement concrete. It gives a structurally sound floor, if properly constructed; it is fireproof; it is relatively low in cost, and, under not too severe traffic conditions, wears well. It has also some disadvantages. It contributes to foot-weariness. If the surface is not given a hardening treatment, heavy traffic will wear it away and rutting and dusting will result. The latter sometimes causes excessive wear in production machinery and presents maintenance problems both of the floor and the equipment. An existing concrete floor that is rutted and worn can be restored, but at considerable cost, not only for the floor itself but also through intereference with production.

Restoration of a badly worn concrete floor usually requires that 1½ in. or 2 in. of the surface be cut away and replaced with new concrete. An operation of this kind should be entrusted only to a skilled and dependable contractor. It is not only essential that good concrete be properly laid but also that the new work be as thoroughly bonded to the old as possible. And, it must be allowed to set and harden thoroughly before again being placed in service.

Hardened Concrete Floors

Hardened concrete floors are secured by several methods. Existing floors may be hardened by the application of a liquid hardening agent which combines chemically with the free lime in the concrete thus filling the pores and rendering the concrete more dense and impervious to wear. A similar job can be done with new concrete floors by incorporating a hardening material, either liquid or powder, in the floor topping as it is mixed. This treatment can be carried a step further by adding a metallic aggregate to the topping, thus obtaining not only a greater density but a wear-resisting surface due to the metallic aggregate itself. Density is a highly important quality in concrete, whether for a floor surface or to produce a concrete that will resist the effects of weather, and anything which makes a contribution in this direction will add years of service to the concrete. Plasticizing agents, added to concrete mixtures, lubricate the mixtures and cause the concrete to flow more readily, at the same time necessitating the use of less water. That, in itself, is an advantage for it has been learned that the use of any water in excess of that chemically needed to activate the cement reduces the strength of the concrete. One of the most successful contractors for industrial concrete floors, The Kalman Co., recognizes this principle in its floor installations, and has developed a process of removing excess water immediately the concrete has been placed.

Restoring Worn Floors

The restoration of a badly worn concrete floor can usually best be accomplished, at lower overall cost, by covering it with a new wearing surface of mastic. A new surface of this material requires much less preparation of the old to receive the new, it bonds tenaciously with the old concrete base, and can be worked down to a feather-edge in meeting adjacent floor levels. Furthermore, it can be put in service within a relatively short time after placing. It is applied in about ½ in. thickness, and in varying degrees of hardness, depending upon the traffic requirements. It has another important advantage in that it can also be installed over an existing wood floor. The Stonhard Co. is one of the best known manufacturers of such a mastic flooring material.

Composition Floors

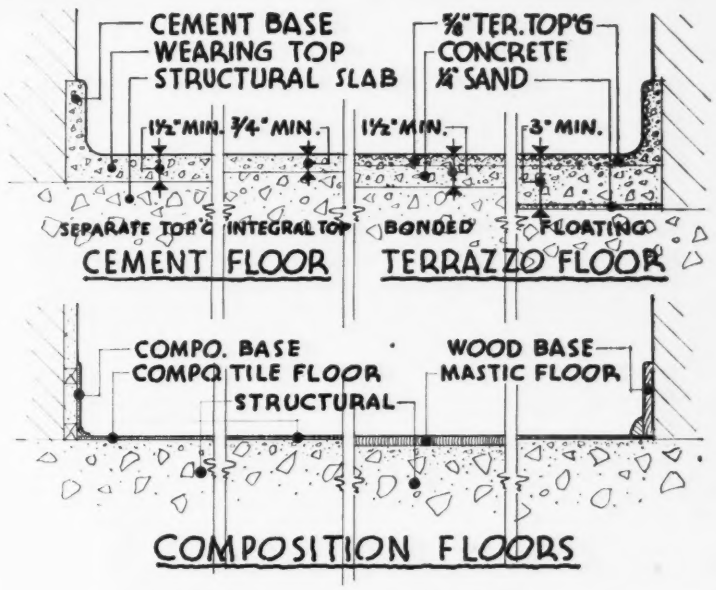
Among composition floorings, those generally classed as Asphalt Tile, are in greatest use. While the formulae under which these tile are manufactured vary somewhat, they are generally composed of asphalt, asbestos and mineral pigments. They are made in a variety of colors, thicknesses and sizes, are relatively low in cost, relatively foot-easy and, unless waxed, foot safe. When installed in manufacturing areas, or where grease and oil are present, those of grease-proof composition should be used. Asphalt Tile floors wear well and can be installed over concrete or wood base. The instructions of the manufacturer should be followed as to the condition of the base floor, its preparation, adhesives, etc.

The use of rubber tile, while a pleasant and durable flooring material, is largely limited to office areas. Its cost is greater

PRINTING PLANT FLOORS

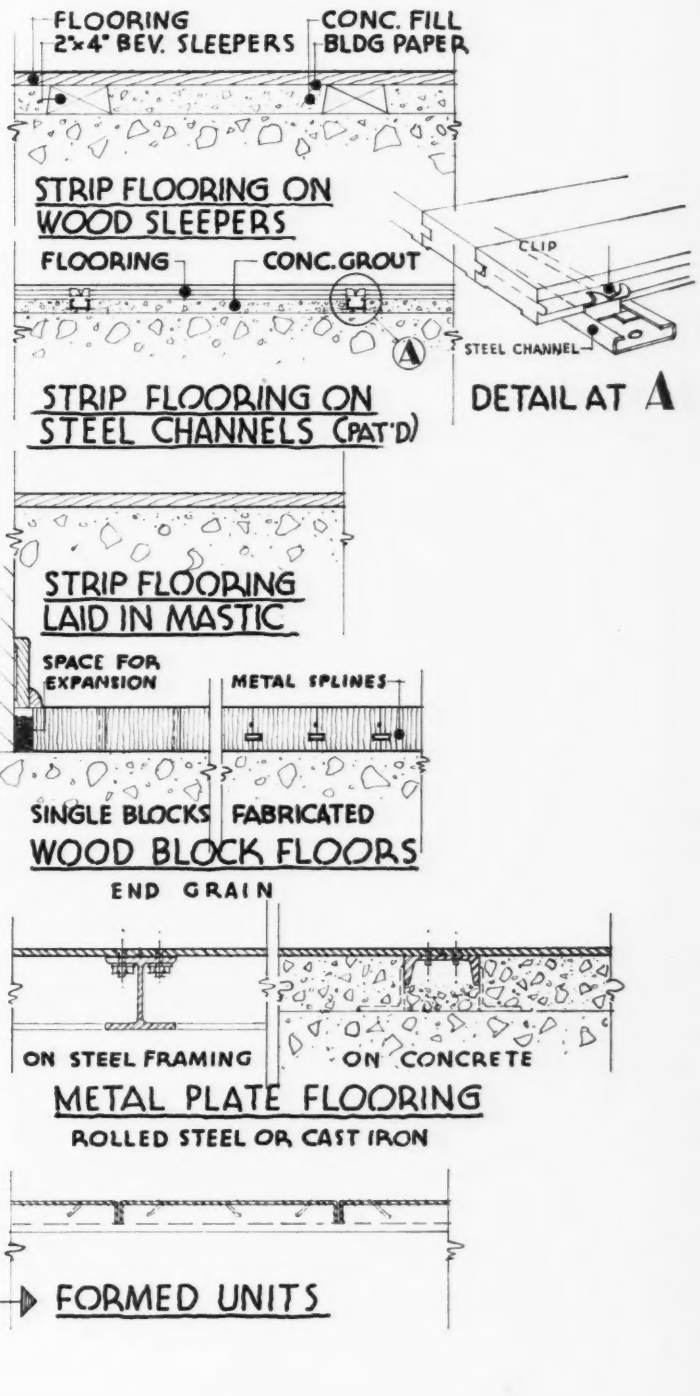
PORTLAND CEMENT

PLAIN
HARDENED
ABRASIVE SURFACE
ARMORED
TERRAZZO



COMPOSITION

ASPHALT TILE
RUBBER TILE
VINYL TILE
ABRASIVE TILE
MASTIC
ASPHALT BLOCKS



WOOD

STRIP — SINGLE PIECE
FABRICATED BLOCKS
SPLINED

BLOCK — SINGLE
FABRICATED STRIPS

METAL

ABRASIVE PLATE — CAST
ROLLED

STEEL PLATE — PLAIN
PATTERNED

FORMED UNITS
GRATING

CLAY

CERAMIC TILE
QUARRY TILE
BRICK

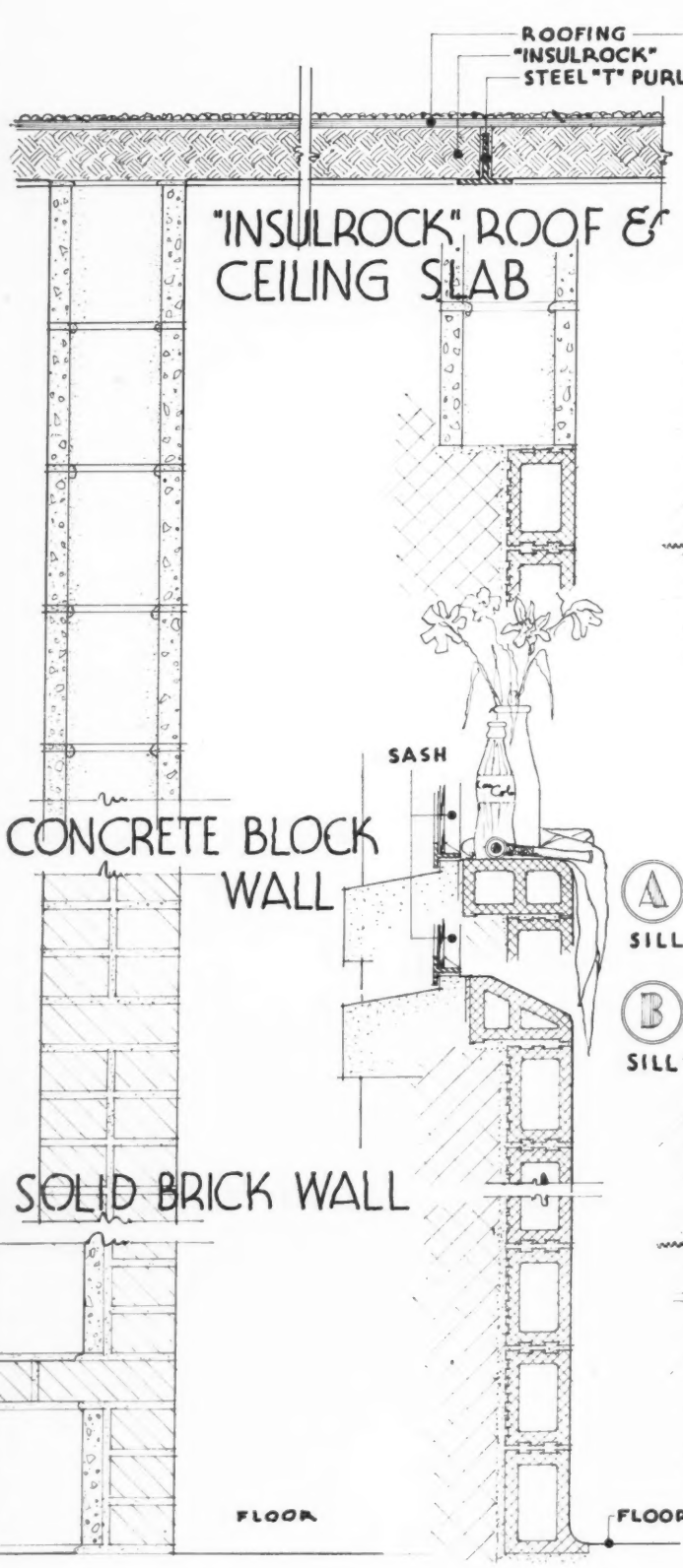
Fig. 1.

PRINTING PLANT WALLS & CEILINGS

METAL LATH AND PLASTER WITH STEEL SUSPENSION MEMBERS

ACOUSTICAL TILE ON WOOD SUSPENSION CONST'N

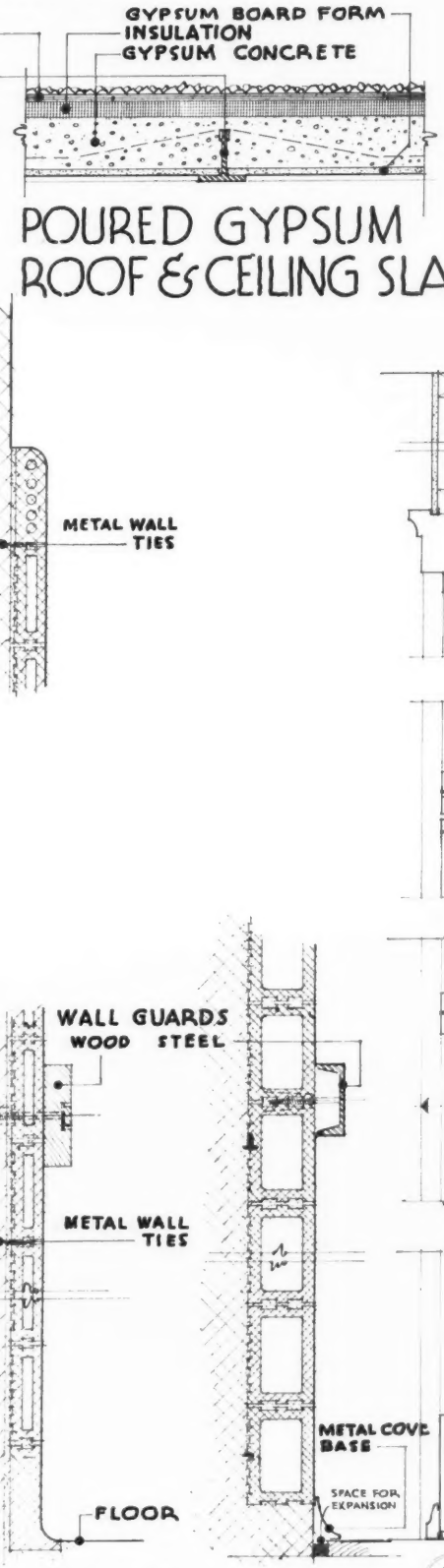
SUSPENDED CEILING CONSTRUCT'N



"INSULROCK" ROOF & CEILING SLAB

CONCRETE BLOCK WALL

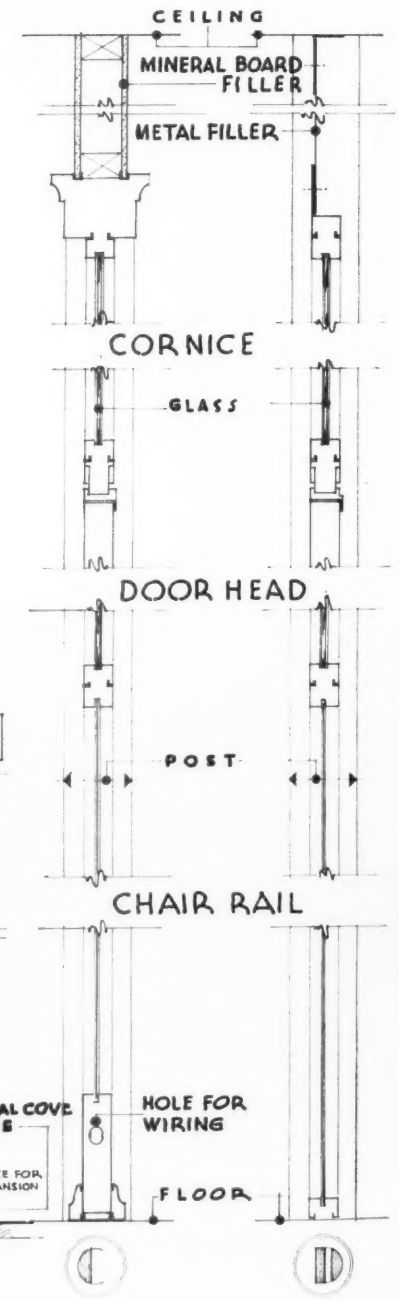
SOLID BRICK WALL



POURED GYPSUM ROOF & CEILING SLAB

4" UNITS BUILT INTEGRALLY WITH STRUCTURAL WALL

2" "SOAP" FACING



BRICK FACE WALL CONCRETE BLOCK BACK-UP

GLAZED TILE WALLS

UNIT METAL WALLS

Fig. 2.

than that of the floors of the asphalt tile family, and it should not be used in areas where grease, oil, ink, etc., can reach it.

Vinyl Family Floors

Floors of vinyl family show great promise. They are resilient and comfortable, very durable, resistant to grease, oils, acids, alkalies, etc., and can be laid over wood, concrete or other sound base material. Some manufacturers offer this material in sheet form as well as tiles, although the preference appears to be for the latter. The dimensional stability of large sheet surfaces and the ability to develop proper adhesives to keep it securely in place appear to be on the way to solution, but have presented some problems in the past. In cost, it exceeds asphalt tile by a considerable margin, but improved manufacturing techniques will probably tend to close this gap.

Wood Floors

Wood floors hold an important place among the floors of tomorrow and today, and will undoubtedly continue to hold their own through several tomorrows. In many old plants, the structural floors are of wood as well as the surface. In earlier buildings with concrete structural floors, it was the prevailing practice, where wood finish floors were desired, to place beveled wood sleepers on top of the concrete slab at normal joist spacings, level them up and pour low-strength concrete between them. This concrete was frequently made with cinders as an aggregate. For office use, and similar light loadings, floors of this construction gave satisfactory service. Where loadings were heavier, however, and traffic considerable, unless the finish floor was of plank thickness or the sleepers closely spaced, the concrete fill between the sleepers broke down and disintegrated, leaving the flooring surface poorly supported. In present day construction this means of supporting the finished floor is seldom used but the flooring is laid directly on the concrete slab with a bedding of mastic between. A patented type of flooring support, using rolled steel channels and metal clips is shown in Fig. 1. This system of construction makes provision for distributed expansion and contraction throughout the floored area and merits consideration. It is manufactured by Loxit Systems, Inc. It is adapted for use with strip wood flooring.

Northern hard maple is the material in most general use for industrial wood floors, and the majority of them today are laid in mastic over a concrete base. The flooring is either of individual pieces of relatively short length, or assembled into blocks. One of the most popular of the single strip type is the flooring manufactured under the trade name Ironbound. These strips, either in edge grain or flat grain, are obtainable in thicknesses from $^{33}/_{32}$ in. to 2½ in., and are generally about 12 in. in length. They are laid in strips, with saw-tooth steel splines between the strips, driven into saw kerfs in the ends of the individual strips of flooring. This flooring has found very wide acceptance in the printing industry.

Grain Wood Blocks

From the standpoint of ability to absorb punishment, end grain wood blocks occupy a place of their own. Where a precisely smooth surface is not a rigid requirement, individual blocks set in mastic provide a highly serviceable floor. If a smooth surface is required, or in areas where the creosote treatment of the standard blocks might be objectionable, end grain blocks assembled into strips and secured together with metal splines make an admirable floor. These are generally finished with a colorless and odorless preservative. For composing rooms and other areas where a smooth floor is desirable, these assembled wood blocks are a splendid answer. In addition to being foot-comfortable they are foot-safe.

Metal Floors

There are many places about a printing or publishing plant where a metal floor surface is desirable. A metal floor provides just about the ultimate in resistance to wear and brute punishment. In areas where grease, oil or ink may accumulate upon them, however, they become hazardous to foot traffic. This, in a large measure, is overcome by the use of metal with an abrasive surface. Perhaps the best known material in this class is Feralun, which is cast iron with an abrasive material incorporated in the wearing surface. It is manufactured by American Abrasive Metals Co. Quite similar materials are also manufactured by Wooster Products Co., and McKinley Iron Works.

Algrip Flooring

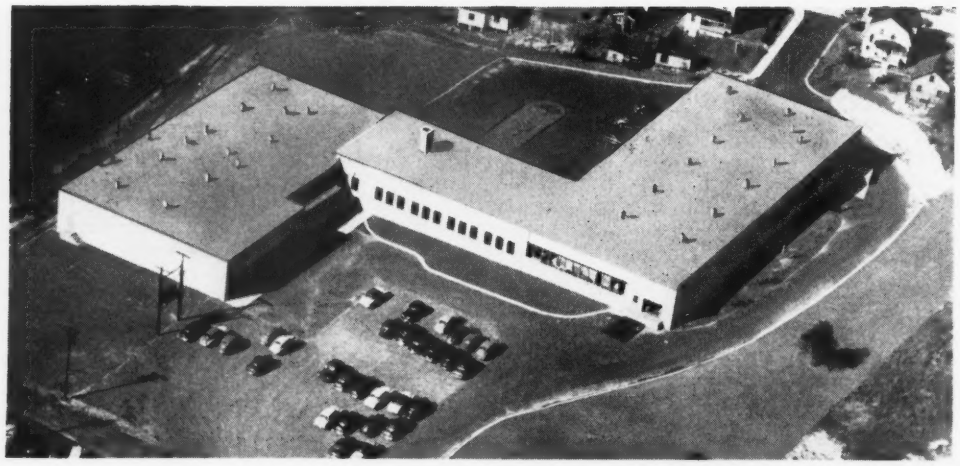
A rolled steel plate which is made for similar uses is Algrip which is manufactured by the Alan Wood Steel Co. In the manufacture of this material, the abrasive mineral is rolled into the semi-molten surface of the plate as it passes through the rolls. Experience, so far, seems to indicate little if any difference between the cast and the rolled plates, either in slip resistance or in durability. There is some costwise advantage in the abrasive steel plate over the cast plate. The rolled plate can be cut and fitted in the field, while the cast plates must be cast to template and are very difficult to cut, drill or otherwise alter in the field. Supporting framing is somewhat simplified where steel plates are used. Their greater strength permits longer spans between supports, whereas cast iron with its lower tensile strength must be more securely supported.

A new type of metal flooring material has somewhat recently been placed on the market by Armco Drainage and Metal Products, Inc. It is known as Stelcon and consists of perforated steel plates with edges turned down to form inverted pans. It is made in full and half pans, 12 in. by 12 in. and 6 in. by 12 in. in size, and in each pan there are rows of perforations, or slots, the perforated metal being cut free on three sides and left intact on the fourth, thus making a

(*Continued on Page 74*)

Miller Sales Meeting—Miller Printing Machinery Co. recently held a sales conference at the home offices and plant in Pittsburgh. In addition to reviewing 1952 business, Vice President E. A. Searle, jr., announced plans for 1953. It was also announced that Miller would act as sales representative for the Soldans (Eng.) bronzing machine.

Those attending the meeting (from left to right) in the above picture were: (Top Row): O. McIntyre, E. D. Ewing, O. E. Adams, J. R. Lee, R. Sandbach, H. T. Russell, A. E. Furstenberg, R. Hearn and F. A. Ross. (Bottom Row): W. S. Armstrong, T. F. DeNormandie, W. W. Hicks, E. R. Harris, R. C. Grewe, R. M. Merritt, W. G. Morgan, E. D. Betts; A. E. Searle, Vice Pres. and Sales Mgr.; A. E. Bradley, D. J. Casey, Vice President, H. T. Eckhardt, jr.



Aerial view of the Derrick Publishing Co., Oil City, Pa., showing Zee formation of the building described in the accompanying story. The newspaper plant (left), which publishes the Oil City *Derrick* and *Blizzard,* is connected by the business offices (center) to the Commercial Printing Div. (right). Employees of the company are provided with a 100-car parking lot in the foreground with customer parking area located in the background of this picture. The spur track for receiving shipments of newsprint rolls can be seen in the upper left hand corner. This is connected to the Pennsylvania Railroad track which runs close by to the plant. Landscaping of the firm's tract of ground was arranged to blend in with the surrounding area.

commercial and newspaper printing plants

housed in zee-shaped building

each independently operated
under one ownership
modern equipment

By Edward H. Owen

TUCKED away in the hills of Northwestern Pennsylvania is a modern combination commercial and newspaper printing plant equipped for the production of a variety of commercial printing as well as two daily newspapers. Known as The Derrick Publishing Co. and situated in Oil City, its greatest attribute is variety of equipment for performing an extensive range of letterpress and offset printing.

Operating as two independent divisions under one ownership, the commercial and newspaper plants are self-sustaining. The Commercial Printing Division is equipped for handling small jobs as well as extensive runs of several hundred thousand four-color advertising pieces. The Division also prints and finishes hard-bound gold-stamped books. The Newspaper Division publishes the morning Oil City *Derrick* and the evening Oil City *Blizzard.* Both divisions are housed under one roof. Physically speaking, executives in separate business offices direct operations for each division.

Oil City is a town of approx. 20,000 people. Perhaps its isolation from metropolitan centers, plus good management and usefulness to the people in the territory served, account for the success of the company.

Zee-Shaped Building

The building is of unusual construction in that it is situated on a plot of ground which carries a 15 deg. slope. As will be seen by the accompanying plant aerial view, the Commercial Printing Div. (right) and the newspaper publishing plant (left) are connected by a sub-

stantial building which houses the business offices. The building might be called Zee formation, the main buildings being connected at an angle of 90 deg. to the common stem. Floor levels for the three sections, of course, are level but of different heights with respect to each other. The grade is slight from one building to another.

It was explained to *Printing Equipment Engineer* that Oil City is located in a valley through which runs the Allegheny River and the Pennsylvania Railroad. There just isn't too much level ground available. What some people in another part of the country might consider a disadvantage was turned to good purposes in planning the building.

First, the Commercial Printing Div. is situated near a street at the upper level over which considerable traffic passes, making it convenient to reach the plant. In the next instance, newsprint rolls for both the *Derrick* and the *Blizzard* are shipped in by railroad. So a spur track was built right next to the newsprint storage room. Capacity of this room is five carloads.

The building is heated by a gas fired hot water convector system. The temperature regulating means consists of Johnson North and South exterior bulb system for regulating inside building temperature.

The Derrick Pub. Co. building is steel-frame brick-faced one story construction. In the entire plant there are some 40,000 sq. ft. of floor space.

Generally speaking, the business, editorial and advertising offices are illuminated by flush-mounted fluorescent lighting fixtures set in acoustic ceilings. The production and mechanical departments of both plants are illuminated by ceiling-suspended fluorescent fixtures.

Kentile composition block is used for flooring in all offices.

Executive Personnel

The business executive personnel of the Derrick Pub. Co. is as follows: President, E. P. Boyle; Executive Vice Pres., Thos. J. Moran, jr.; Vice President in Charge of Commercial Printing, Joseph S. Nelson; Vice President in Charge of Sales, Robert W. Rhoades.

In the mechanical departments, the following men hold responsible positions: Commercial Plant Production Manager, F. P. Schwakopf; Mechanical Supt. of both newspapers, Kenneth Rapp; Jack Cross is Composing Room Foreman of the *Evening Blizzard*; S. S. Szalewicz is foreman of the *Derrick* composing room; Willard L. Oelkrue is Press-Stereotype Foreman for both newspapers; in charge of the Mailing Room is Norman Wolcott; Carl Nelson serves both papers as news photographer and he also operates the Fairchild Scan-a-graver between assignments. There are 135 plant employees.

Officials of the Derrick Pub. Co. pride themselves on low employee turnover. An interesting instance is that of William J. McGurn who operates a Hickok thread ruling machine. Mr. McGurn has been usefully employed at Derrick for 59 years, having started work in 1893.

The Commercial Plant

RESPONSIBLE for administration and production of the Commercial Printing Division of the Derrick Pub. Co., is Vice Pres. Nelson and Production Mgr. Schwakopf. The self-sufficiency and wide scope of services provided must be maintained by plants in geographical locations such as Oil City. Its markets for production must also include a wide area which calls for direction of the highest caliber in maintaining close liaison and communication with the customer.

Covering such a large territory creates the necessity of being prepared to handle a diversified number of jobs. Little opportunity is left for specialization. Color work performed by the Commercial Div. totals approx. 90 per cent which includes four-color process jobs on many advertising pieces. Its production would be termed general commercial printing. To be more specific, it includes catalogs, ruled forms, advertising pieces, stationery, die-cut promotional pieces, election ballots, booklets, pamphlets and similar material.

Key Personnel Assisted in Planning

The move of the commercial printing facilities from the previous location in Oil City, consumed about four days of interruption in the Printing Division's production schedule. This operation followed the many months' planning employed by similar companies who have undertaken a change of location. The key personnel participated in the planning, of which the most important aspect was the proper placement of production equipment. In addition to Nelson and Schwakopf, these mechanical executives were James C. Carroll, Composing Room Foreman; Warren D. Rhodes, Pressroom Foreman; and Orlo Gesin, Bindery Foreman.

Building outlines scaled to ¼ in. to the ft. floor areas on heavy cardboard were made and cardboard templates representing the equipment were cut out on a ¼ in. to 1 ft. scale. The final equipment layout provided a blueprint for the movers to place the machines in the predetermined location.

On moving day itself, executives of the mechanical staff were armed with blueprints of the equipment layout for their individual department. Chalk lines were drawn on the floor of the new plant and marked designating the spot for each press, cutter, folder, table, rack, etc. As the equipment was moved in off the trucks, the department head was on hand to guide it to its position in the plant. This system of handling and prompt identification prevented considerable confusion which otherwise would have existed in a moving operation of this size.

The dismantling, moving and reassembling of equipment was performed under the personal supervision of M. L. Abrams, President, The M. L. Abrams Co., Cleveland.

With an eye to the future, the management planned for future additions of new equipment to increase the output of the plant. In the non-partitioned area housing the three commercial printing departments, sufficient space was left for installing future machines.

Executive Personnel of The Derrick Publishing Co.

E. P. BOYLE, President

THOS. J. MORAN, jr. Executive Vice Pres.

JOSEPH S. NELSON, Vice Pres. in Charge of Commercial Printing

ROBERT W. RHOADES, Vice Pres. in Charge of Sales

Movable Lighting System

The Commercial Division is equipped with a well planned lighting system. It consists of about 90 two tube fluorescent fixtures each 4 ft. long suspended from a track which permits movement of the individual fixture along the track. Allowances have also been made to move the fixture 4 ft. from center in either direction without disconnecting the center contact point. Seven overhead tracks are installed above the printing department, each containing 12 fixtures. Such a system is especially beneficial in obtaining correct lighting over new equipment installed or over a machine that has been shifted from one spot to another. Each fixture is fitted with its own individual pull chain switch control.

Located in the center of the commercial printing area is a control track to which are attached the individual switch boxes for the plant's equipment. These switch boxes are also movable by disconnecting two bolts by which they are held and sliding the box along the track.

Heating System

Heating of these departments is provided by 11 overhead blower heaters. Each is located on either side of the room in staggered arrangement for distributing heat through the room area. A row of hot water heated radiators runs along the outside wall to complete the heating system. Regulating devices are set for average winter outside temperature.

Taped Traffic Aisle

Running parallel to the inside wall is an 8 ft. wide aisle designated by a 3 in. wide yellow plastic tape line cemented to the floor. Along this main workflow artery the stock is moved from paper storage to the presses and later to the bindery and shipping. Uninterrupted movement of material is accomplished by adherence to the rule of keeping this aisle free of obstructions at all times.

Four-Level Unloading Dock

The commercial printing department is outfitted with a four-level unloading dock outside the receiving room where incoming paper stock is unloaded. The platform is designed for receiving on four sides according to the tail gate height of the truck making the delivery. Constructed of cement, each side has a height difference of 2 in. from the ground level to the top of the platform. Starting at the left side of the dock facing outward from the door of the receiving room, the height levels are 45 in., 47 in., 51 in. and 49 in. Such an arrangement also permits several trucks to discharge their cargo at the same time.

Cold Weather Provisions

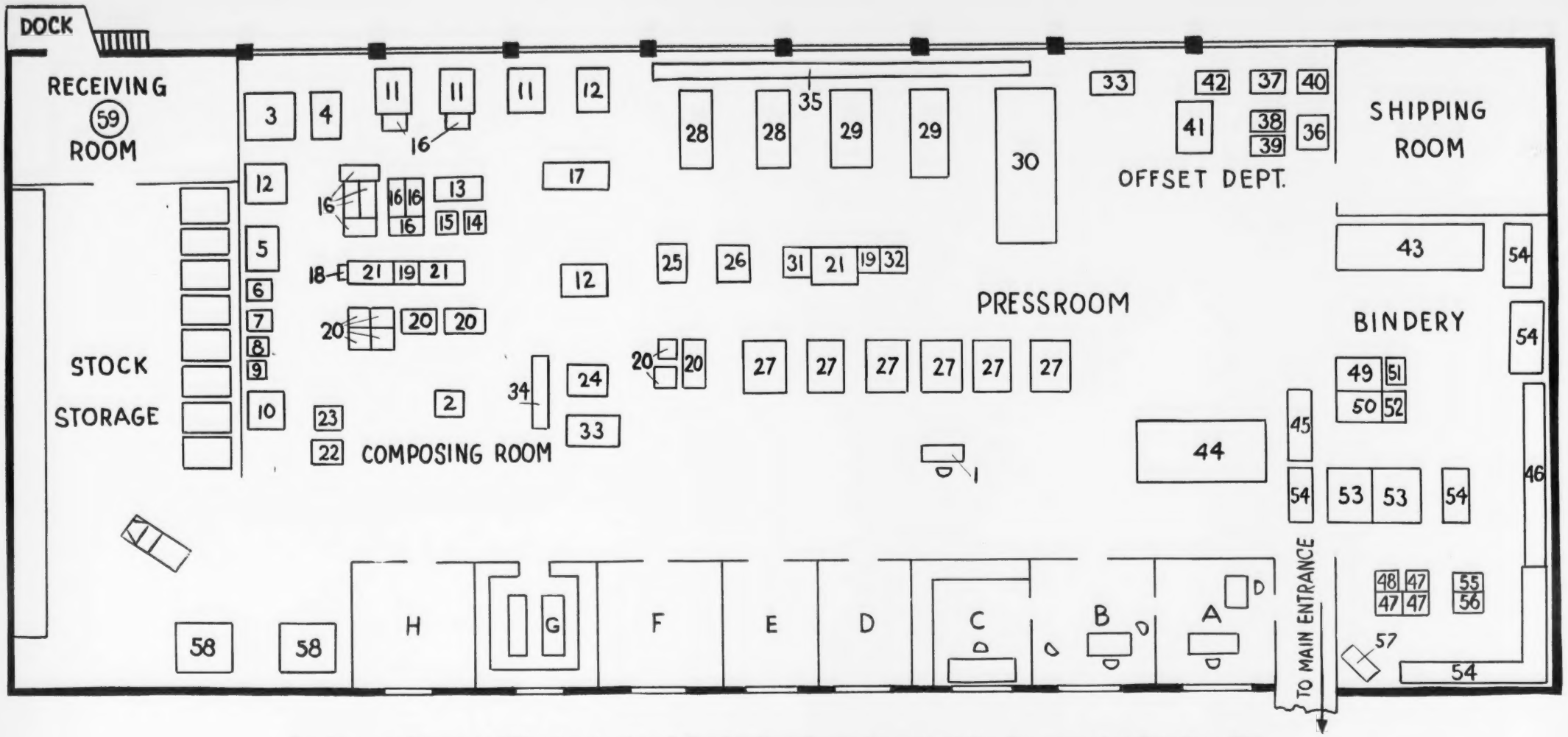
Stock unloaded onto the dock during cold weather is first taken through an overhead door into a small receiving room. This is partitioned off from the stock storage area which is entered through swinging doors.

In the commercial printing division's receiving room, there is a ceiling unit heater containing hot water coil and electric distributing fan. When the outside door is opened to receive paper shipments, the heater is turned on automatically. The paper then is left in the receiving room for tempering or until the paper has reached approx. the same temperature as exists in the stock room immediately adjacent. Such an arrangement was installed for tempering the cold stock brought in off the trucks during the winter months. It also prevents cold air from entering the stock storage room during unloading operations and warms the receiving room after the delivery has been made and before the doors to the storage area are opened.

Employees' Lunch Room

Employees of the commercial division have their own comfortably furnished lunch room which is separated from the production departments. Modern chairs and tables are provided. A popular feature of this room is a combination stove,

View of the offset, press and composing departments of the Commercial Printing Div., Derrick Publishing Co. Delivery ends of the ATF Chief offset press, Miehle cylinder press and Kelly cylinder presses all face toward the windows which have a northwest exposure. Layout of the presses in this manner was planned to enable pressmen to maintain an accurate check of color. This view also shows the position of the fluorescent lighting system suspended from the overhead tracks of the movable lighting system.



Equipment Layout of Mechanical and Production Departments of the Commercial Printing Div., Derrick Publishing Co., Oil City, Pa.

(Not to Scale)

Composing Room

1.—Production Mgr.'s Desk
2.—Composing Room Foreman's Desk
3.—Model 31 Linotype Machine
4.—Linotype Magazine Rack
5.—Elrod
6.—Ludlow Matrix Cabinet
7.—Ludlow Machine
8.—Ludlow Matrix Cabinet
9.—Ludlow Face Burnisher
10.—Monotype Caster
11.—Type and Makeup Cabinets
12.—Type Cabinents
13.—Miller Bench Saws
14.—Plate saw for cutting base
15.—Jig Saw and Router
16.—Challenge Galley Storage Racks
17.—Proof Press
18.—Honig Multiple Broach
19.—Furniture Rack
20.—Chase Racks
21.—Imposing Tables
22.—Proofreaders' Table
23.—Work Table

Pressroom

24.—Colts Armory Die Cutting Press
25.—Chandler & Price Platen Press, 10 in. by 15 in.
26.—Heidelberg Platen Press, 10 in. by 15 in.
27.—V-36 and V-45 Miehle Vertical Presses
28.—Style B Kelly Presses, 17 in. by 22 in.
29.—Style C Kelly Presses, 17 in. by 22 in.
30.—No. 4 Miehle Cylinder Press, 25 in. by 36 in.
31.—Craftsman Line-up Table
32.—Saw
33.—Makeready Tables
34.—Stock Table
35.—Ink Storage Rack

Offset Department

36.—ATF Line-up Table
37.—Douthitt Plate Whirler
38.—Douthitt Vacuum Printing Frame
39.—Arc Lamp
40.—Douthitt Temperature-Controlled Sink
41.—ATF Chief 22 Offset Press, 17 in. by 22 in.
42.—Work Table

Bindery

43.—Hickok Ruling Machine, 48 in. by 48 in.
44.—Baum Folder, 25 in. by 38 in.
45.—Baum Folder
46.—Four-Station Gang Stitcher
47.—Boston Hand Stitcher
48.—Challenge Drilling Machine
49.—Rosback Automatic Perforator
50.—Punching Machine
51.—Round-Cornering Machine
52.—Number Machine
53.—37 in. Chandler & Price Paper Cutters
54.—Work Tables
55.—Book Press
56.—Booking Machine
57.—Eyeletting Machines

Stock Storage and Receiving Room

58.—45 in. Seybold Paper Cutters
59.—Overhead Circulating Heater

Miscellaneous

A—Business Office
B—Production Manager's Office
C—Layout and Production Office
D—Women's Rest Room
E—Men's Rest Room
F—Lunch Room
G—Plate Storage Room
H—Maintenance Dept.

Mechanical Executives of the Commercial Printing Div., Derrick Publishing Co., are shown from left to right as follows: Orlo Gesin, Bindery Foreman; F. P. Schwakopf, Production Mgr.; Warren D. Rhodes, Pressroom Foreman; and James C. Carroll, Composing Room Foreman.

sink and refrigerator unit especially installed for the workers' use.

Another aspect of operational independence is a well-equipped maintenance department which services production machinery. This is caged-off between the stock storage area and the composing room and is manned by competent machinists. Typical equipment includes a lathe, drill press, grinders and saw.

Plate and Form Storage

A separate room is utilized for the storage of standing forms and plates. This is accomplished by a number of bins located along the walls. To conserve the use of galleys, the type forms are placed on pieces of heavy board stock and stacked several high. Each bin is numbered and proofs of the form or plate retained in a master file.

Proofs are filed alphabetically under the customer's name and marked with the bin number for quick location. The plates are stored in large cartons which are marked with an identifying symbol for identification purposes. Large volume customers are accorded a separate bin or box with proofs of their standing material filed in the same manner.

The greatest percentage of commercial printing is done from slug composition produced on a Model 31 Linotype. Occasionally, a large job having a great deal of composition necessitates having the newspaper composing room do some of the typesetting. Other important composing equipment in the department includes a Ludlow display machine, Monotype Caster and Elrod Strip Caster.

Motor-driven Fountain Roller

Not unlike other printing plants, workmen in the Oil City firm are constantly on the lookout for work simplification ideas, keenly aware of the savings advantage to themselves and the plant's production. One such device is a motor-driven ink fountain roller installed on a 25 in. by 36 in. No. 4 Miehle cylinder press. It permits Pressman C. R. Henderson, who is responsible for the innovation, to set the fountain keys at the start of a job's run without the necessity of asking someone to turn the fountain roller hand crank.

It is also advantageous to the person washing-up the ink fountain for the roller can be turned at the touch of a control button located nearby. Henderson also finds use for his work saving idea in providing agitation for the ink in the fountain while the press is running or stopped.

The device consists of a ½ h.p. electric motor located alongside the base of the press on the drive side. This is hooked up by a belt drive to a 20 to 1 reduction box. A pulley attached to the fountain shaft provides the means of turning the steel fountain roller. The switch box is attached to the ink fountain itself within convenient reach of the person working at the fountain.

Ink Supply

The ink supply for the pressroom is located on shelves which run along the window side of the department. The shelves are divided into bins, each containing a different color of ink. Such a system saves the pressman time he might otherwise spend in searching for a specific color. Four sections of 10 ft. long shelves are utilized. They measure 36 in. high and 14¾ in. deep.

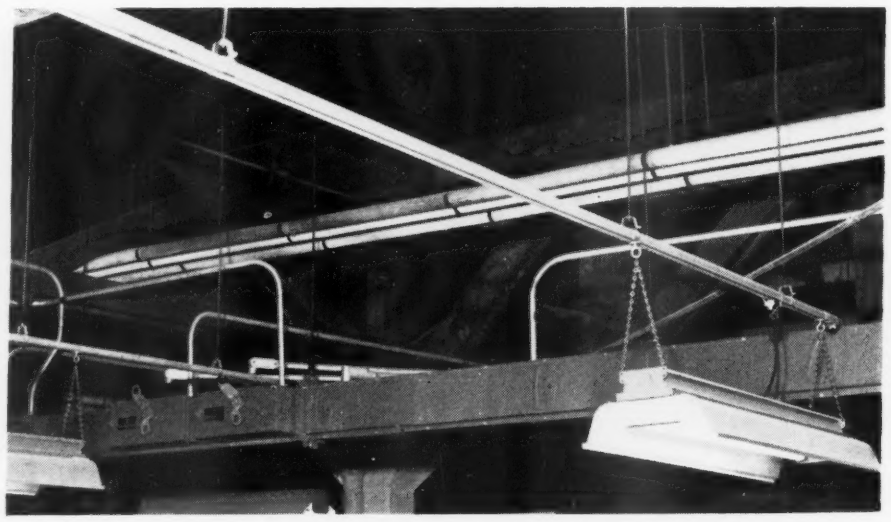
The Newspaper Plant

AS WILL be seen by the floor plan diagram, the workflow moves through the mechanical departments in straightline fashion. Also, it will be observed there is room for future plant equipment expansion. The equipment, of course, is used for fabricating the *Morning Derrick* and the *Evening Blizzard*. The Lamson Tube System is used for sending copy and/or proofs from editorial, advertising and composing departments.

TTS Wire Composition

In the composing room, there are three Comet Linotypes equipped with Teletypesetter keyboard operating units,

(*Continued on Page 69*)



The movable lighting system installed in the Commercial Printing Div., Derrick Publishing Co. The entire system consists of about 90 two tube fixtures, each 4 ft. long, which are suspended from the track shown here. Design also allows movement of the individual fixture 4 ft. from center in either direction. Seven such overhead tracks are installed above the printing department, each containing 12 fixtures. Also shown here is the control track to which are attached the individual switch boxes for the plant's electrical equipment. These switch boxes are likewise movable by disconnecting two screws by which they are held and sliding the box along the track. Such a system is especially beneficial in obtaining correct lighting over new equipment or over a machine that has been shifted from one spot to another.

Newspaper Equipment Layout at Oil City (Pa.) *Derrick* and *Blizzard*

(Not to Scale)

Composing Room

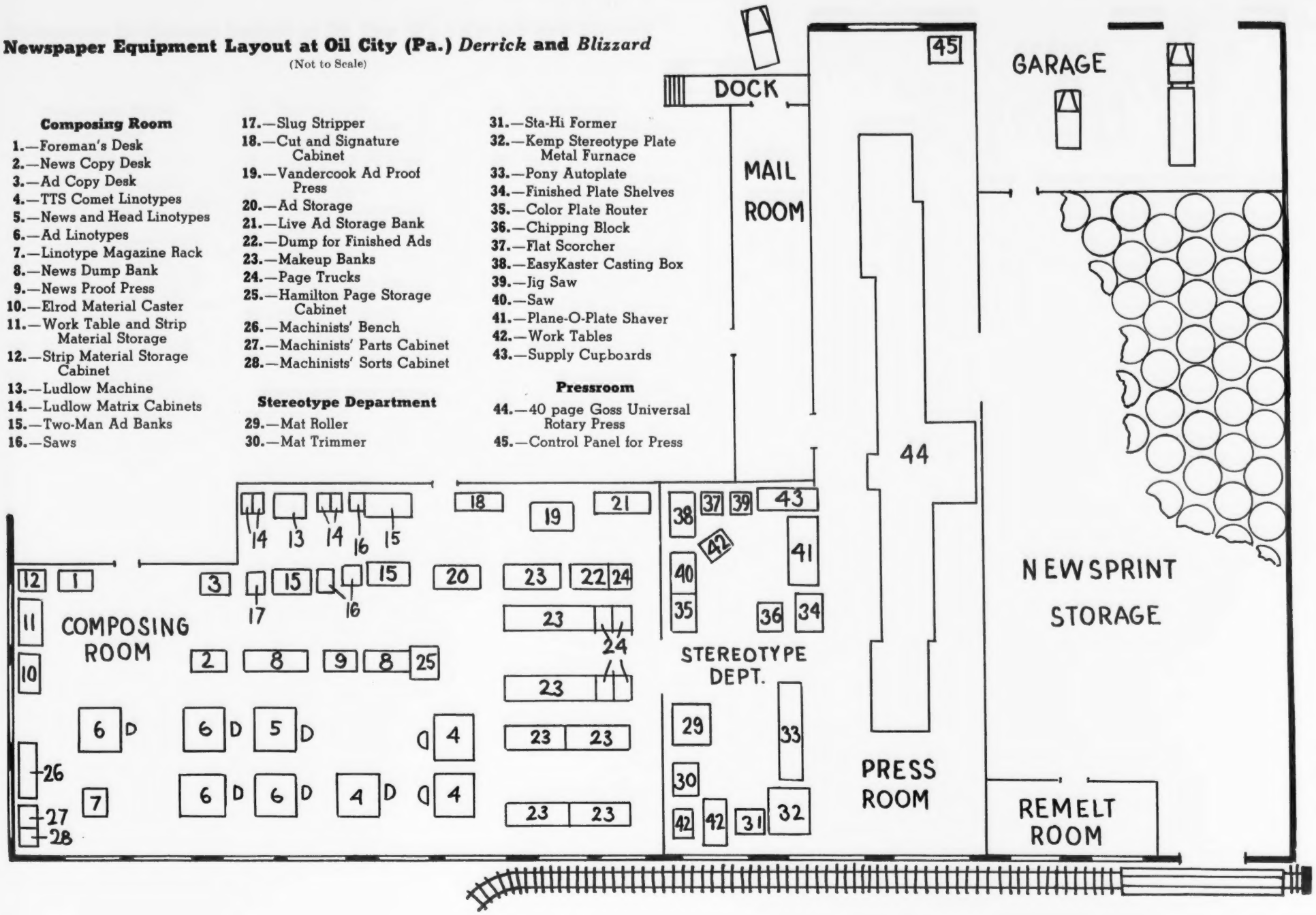
1.—Foreman's Desk
2.—News Copy Desk
3.—Ad Copy Desk
4.—TTS Comet Linotypes
5.—News and Head Linotypes
6.—Ad Linotypes
7.—Linotype Magazine Rack
8.—News Dump Bank
9.—News Proof Press
10.—Elrod Material Caster
11.—Work Table and Strip Material Storage
12.—Strip Material Storage Cabinet
13.—Ludlow Machine
14.—Ludlow Matrix Cabinets
15.—Two-Man Ad Banks
16.—Saws
17.—Slug Stripper
18.—Cut and Signature Cabinet
19.—Vandercook Ad Proof Press
20.—Ad Storage
21.—Live Ad Storage Bank
22.—Dump for Finished Ads
23.—Makeup Banks
24.—Page Trucks
25.—Hamilton Page Storage Cabinet
26.—Machinists' Bench
27.—Machinists' Parts Cabinet
28.—Machinists' Sorts Cabinet

Stereotype Department

29.—Mat Roller
30.—Mat Trimmer
31.—Sta-Hi Former
32.—Kemp Stereotype Plate Metal Furnace
33.—Pony Autoplate
34.—Finished Plate Shelves
35.—Color Plate Router
36.—Chipping Block
37.—Flat Scorcher
38.—EasyKaster Casting Box
39.—Jig Saw
40.—Saw
41.—Plane-O-Plate Shaver
42.—Work Tables
43.—Supply Cupboards

Pressroom

44.—40 page Goss Universal Rotary Press
45.—Control Panel for Press



move from old to new

printing plant

brought with it radical changes

straightline workflow
equipment modernization
in-plant typesetting eliminated
pre-press system
offset department added

By A. G. Fegert

UNEXPECTEDLY, William H. Sleepeck jr., took over the successful business of Sleepeck-Helman Printing Co., 12 years ago. His father established the business in 1904. The son followed his father's instructions to keep the plant modernized in order to render to customers the best possible service. In consequence, he and his associates multiplied the business tenfold, dollarwise, since he took over the business in 1941. Actual volume of printed sheets did not increase in the same ratio. Rising costs of operation and increased prices, due to inflation accounted for some of the increase in dollar volume. So, as the time approached for the expiration of the current lease in the building at 812 W. Van Buren St., Chicago, marking 25 years of occupancy, the undercurrent of thought on the part of Mr. Sleepeck was how to solve the problem of needed expansion and more economical operation of productive facilities. The problem required intensive study and Sleepeck gave it more and more time during the several years he still had available under his lease.

Old Location— Production Headaches

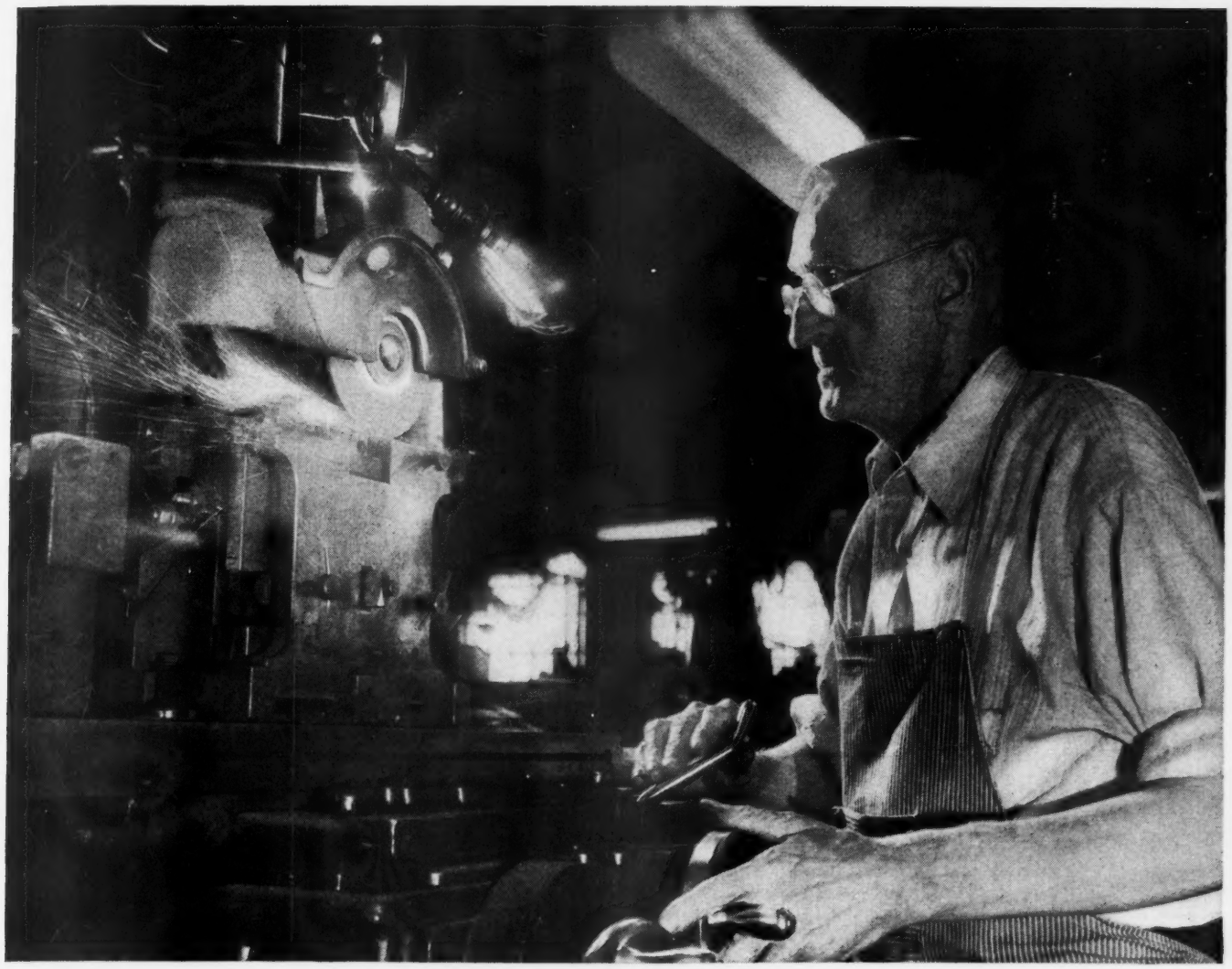
He was hemmed in where his plant was located in the six story building, the plant occupying one whole floor, plus half of another floor, and half of the basement for storage purposes. With only one freight elevator in the building for use by all of the tenants, the chance of expediting the handling of raw materials and work in process was not good, even if more floor space could have been leased, which was not possible.

Consulted with Industrial Engineer

Mr. Sleepeck conferred about his problem concerning future operations, with key men in his organization; consulted with industrial engineers; and studied trade papers' reports of how other

(*Plant Equipment Layout on Page 46*)
(*Article Continued on Page 48*)

General View in Letterpress Pressroom section of Sleepeck-Helman Printing Co., Chicago. Note ample aisle spaces for trucking stock to and from presses. In evidence also are mobile stock trucks near the Meihle Vertical Presses. Natural daylight is supplemented by fluorescent lighting fixtures over the entire plant production area. A prepress testing department functions effec tively before any form goes to press. Mechanical ventilation and heat are provided by means of a blower system. Oil heat is used.



You can't go wrong with genuine Linotype parts!

Precision and experience make them the best you can buy

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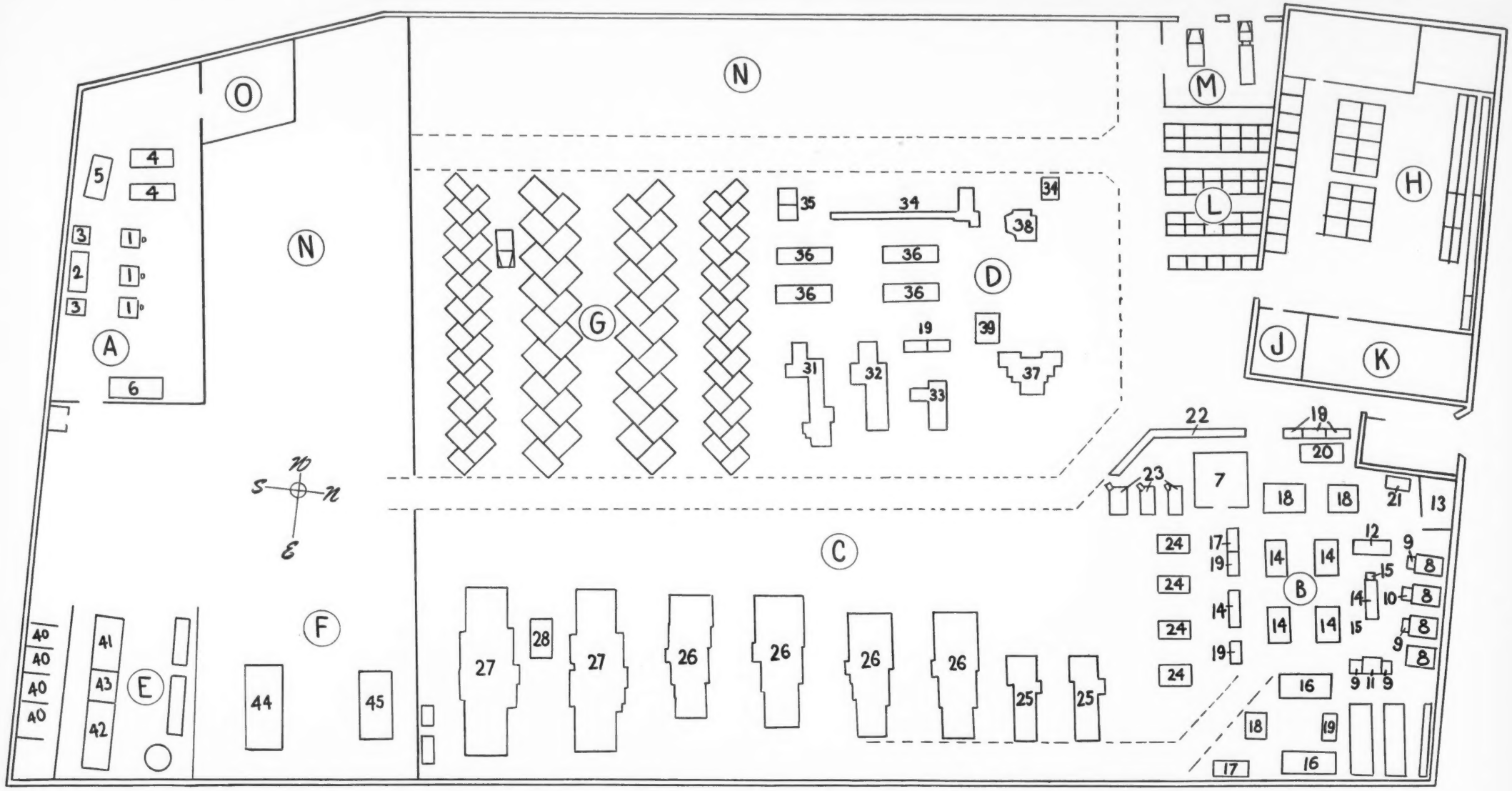


Compact Skid Paper Storage is Shown in this Plant Equipment Layout for Sleepeck-Helman Printing Co., Chicago. Note Straight line Workflow

Sectional Identification

A.—Utility Typesetting Co., Inc.
B.—Composing Room and Prepress Dept.
C.—Letterpress Pressroom
D.—Bindery
E.—Offset Platemaking
F.—Offset Pressroom
G.—Paper Storage Area
H.—Storage area for cuts and standing type for repeat jobs
I.—Ladies' Wash Room
K.—Men's Wash Room and Lockers
L.—Shipping Dept.
M.—Garage
N.—Space for future expansion
O.—Storage Space

Utility Typesetting Co., Inc.

1.—Intertype Machines
2.—Ludlow Machine
3.—Ludlow Matrix Cabinets
4.—Makeup Racks
5.—Imposing Table
6.—Proofreaders' Tables

Composing Room

7.—Superintendent's Office
8.—Makeup Racks
9.—Saw-Trimmers
10.—Miterer
11.—Plate Beveler
12.—Proof Press
13.—Proofreaders
14.—Imposing Tables
15.—Furniture Racks

Premakeready Dept.

16.—Vandercook Test Presses
17.—Chase Racks
18.—Lineup Tables
19.—Cabinets
20.—Table
21.—Dead Chase Rack

Pressroom

22.—Stock Rack
23.—Platen Presses
24.—Miehle V-50 Vertical Presses
25.—No. 2 Kelly Automatic Presses
26.—Miehle No. 41 Automatic Presses
27.—Miehle No. 7/0 Presses
28.—Table
29.—Ink Cabinet
30.—Roller Rack

Bindery

19.—Cabinets
31.—Cleveland Folder
32.—Baum Folder
33.—Baum Folder
34.—Christensen 4-station Stitcher
35.—Hand Stitchers
36.—Work Tables
37.—52 in. Lawson Cutter
38.—Cutter
39.—Cutter Tables

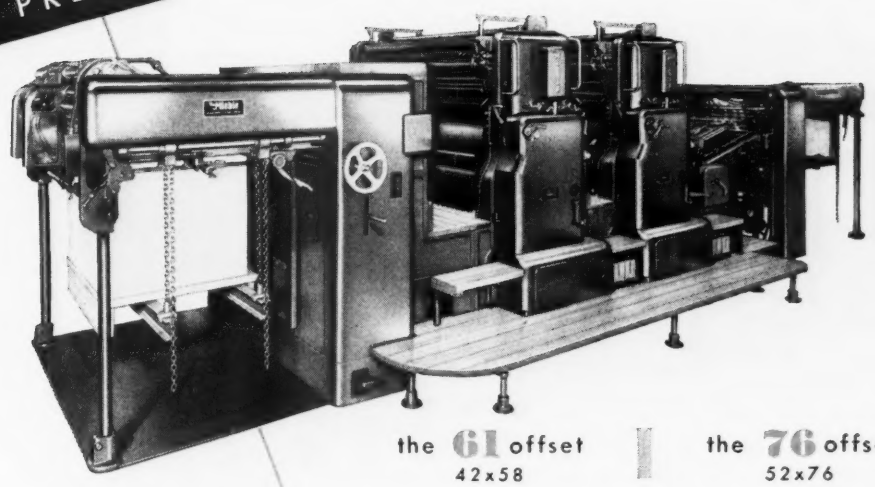
Offset Platemaking

40.—Artists
41.—Robertson Camera
42.—Lanston Camera
43.—Darkroom

Offset Pressroom

44.—Miehle Offset Press
45.—EBC Willard Offset Press

LARGE PRESS



the **61** offset
42x58

the **76** offset
52x76

1 color • 2 color • 3 color • 4 color • 5 color

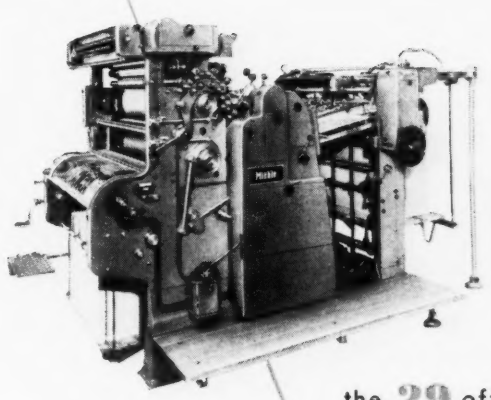
in Offset it's Miehle

Miehle Offsets are designed and built to operate steadily at high running speeds—up to 7000 on the 29, 6500 on the 61 and 6000 on the 76. More important, these high running speeds are translated into unusually high production by numerous features which insure rapid changeover, continuous operation and finest printing quality.

Production—quality—the versatility to handle a wide range of work—these are the factors lithographers seek in a press. They are found in all Miehle Offsets from the large 76 Five Color to the small single color 29 Offset.

Send for full color descriptive folders.

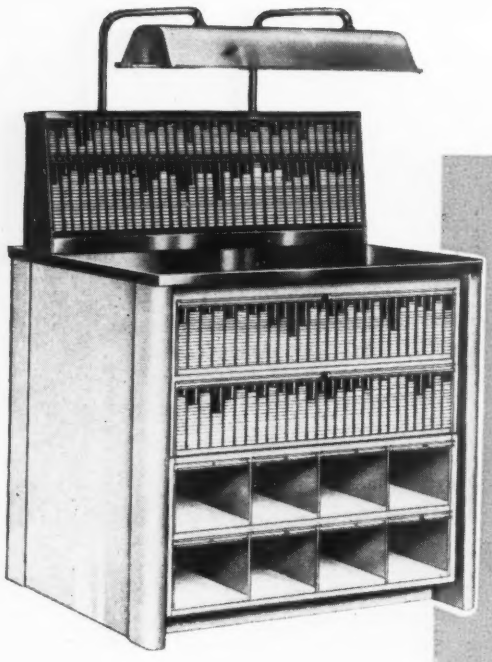
SMALL PRESS



the **29** offset
23x29

MIEHLE PRINTING PRESS AND MANUFACTURING COMPANY

Chicago 8, Illinois



NEW... a "custom made" ad assembly cabinet to meet today's production needs!

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No. 4102C01

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Hamilton has a handy folder which completely describes this new line and the possibilities it offers you. For your free copy see your Hamilton Dealer or send the convenient coupon provided below.

Hamilton PEAK-PRODUCTION equipment

PRINTING EQUIPMENT DIVISION
Hamilton Manufacturing Company · Two Rivers, Wisconsin

Hamilton Manufacturing Company, Two Rivers, Wisconsin

_____Send your new Ad Assembly Cabinet folder

_____Have your representative call

Name_____

Firm_____

Address_____

City_____ State_____

Sleepeck-Helman

(Continued from Page 44)

printers solved their plant layout problems. He and his staff analyzed the nature of their operations. They studied length of runs and sizes of sheets printed. After consideration of all data, they arrived at the conclusion that a one-story manufacturing plant not too far from the heart of Chicago was required to meet production needs.

Then followed the long search for a suitable ready made building. Not finding one, the plan to erect a suitable building was adopted. Finding a site desirable as to nearness to Chicago's Loop was another task which required much searching. Finally a plot of ground was found in an industrial area fronting 263 ft. in the 1300 North block in Elston Ave., and 137 ft. in Blackhawk St., also in the 1300 block West, and 127 ft. frontage in Evergreen St., running parallel to Blackhawk St. (The street address used by the firm now is 1301 W. Blackhawk St.) The purchase of the site was made, the distance of the proposed building being only 2½ miles North and ½ mile West of the location of the firm at that time.

When the architect finished his studies of requirements in cooperation with the management of the printing business, the blue prints called for a one story steel and brick structure containing 42,000 sq. ft. of floor space. Provision was made for the office to be located on the second floor of the building at the northwest corner of the site.

During one of the recent tours of the finished plant by the writer in preparation for this article, George M. Tait, Asst. Superintendent of the plant who has been in the employ of the firm for more than 40 years, remarked:

"Can't Think of Any Change"

"This is one of the best laid-out printing plants in Chicago."

He was asked what changes the management would make if it could start all over in laying out the plant in view of experience since its occupancy of more than a year. He looked around thoughtfully, then answered: "I can't think of any change that would be of advantage."

Mr. Tait pointed toward the presses and indicated how they were lined up in the East part of the building South of the composing room. He also pointed to the bindery and shipping room which occupy the west part of the one large room without any partitions between these departments. He mentioned that work in process flows progressively through the plant from one operation to another without backtracking. He directed attention to the plentitude of space—elbow room, he called it—around each press and in the aisles for handling paper stock (all on skids). This saves the time which had been wasted because of overcrowded con-

(Continued on Page 54)

Champlain

NEW CHAMPLAIN SHEETER FOR ROLL FED EQUIPMENT CUTS UP TO 12,500 SHEETS PER HOUR*

Ideal companion for Champlain high-speed inline rotogravure and rotary aniline presses. This new sheeter cuts consistently square sheets from roll stock *1½ times faster than any other standard sheeter.*

HIGH SPEED . . . from 8,500-10,500* sheets per hr. (400-500 feet per minute) of glassine and paper backed foil to 12,500* sheets per hr. (600 feet per min. upward) of paper and cardboard.

ACCURATE . . . square cut sheets to 1/64" accuracy, any stock — any speed.

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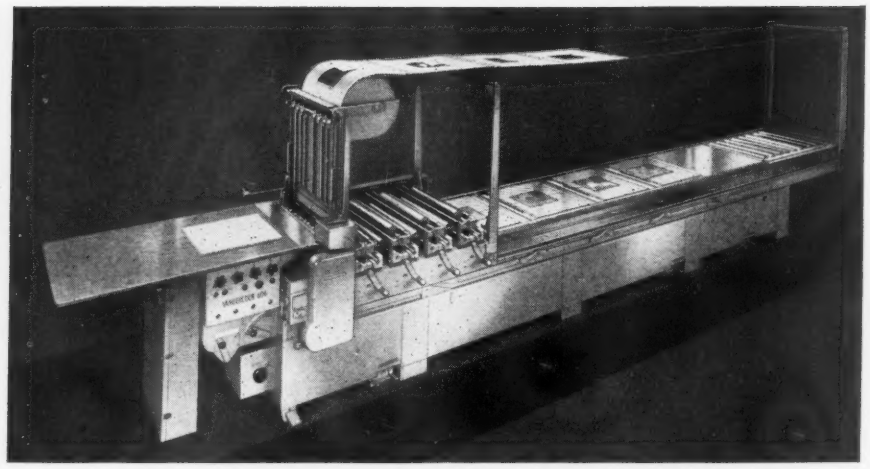
Champlain manufactures a complete line of rotogravure, aniline, rotary letterpress and allied equipment for packaging and specialty printing.



Picture Story

About a one-man Engraver's Proof Press which simulates four color process magazine production printing

THERE has been increasing activity among national advertisers, and the advertising agencies and magazine printing firms through their associations for four color process engraving proofs produced as nearly as possible in simulation of high speed magazine production printing.

Color process engravings are expensive in themselves. If the engraver's color proofs do not look reasonably close to the final result in the magazine you read then there may be dissatisfaction and excessive production expense or a feeling of just plain futility among those who try to make the color process plates print as intended.

Most nationally distributed magazines are produced by wet color process letterpress printing without any allowance for ink drying time between color impressions. In other words, the time interval between the printing of each color is of a split second order in regular press production runs.

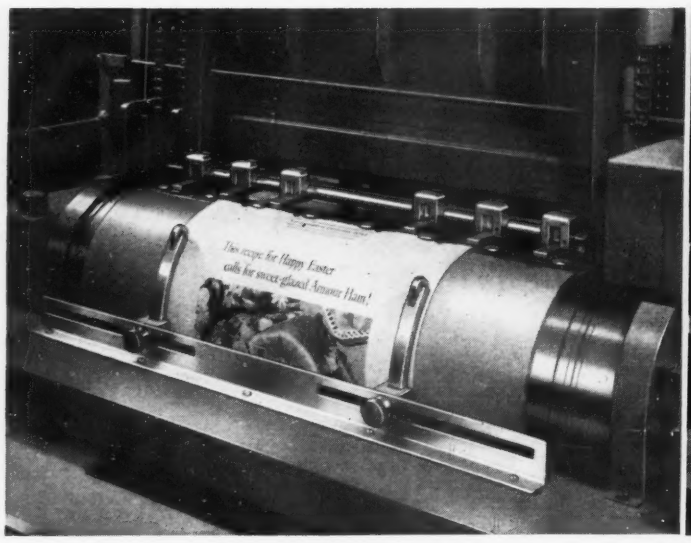
An increasing number of magazine publishing houses, agreeable to this principle, also furnish to the engraver the exact paper and inks which will be used in the magazine in which the color work is to appear and upon which the engraver is expected to take his progressive color proofs with color bars.

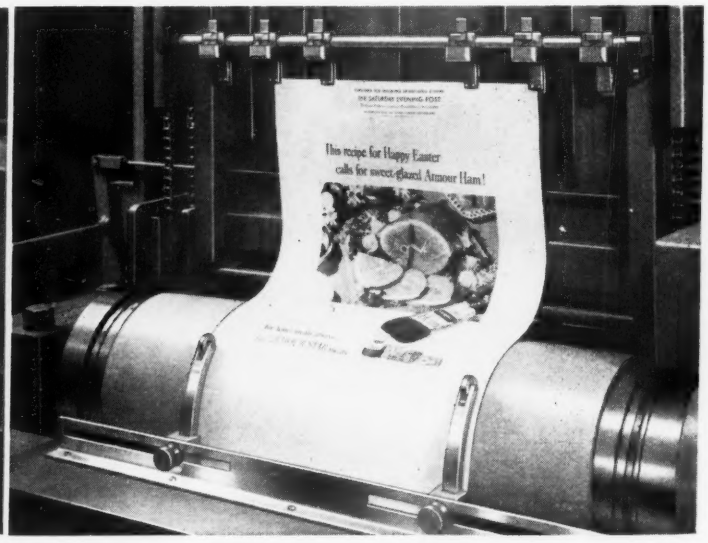
In line with the demand for color process proofs produced in simulation as nearly as possible like wet printing on production presses, Vandercook & Sons, Inc., recently re-engineered that company's high-speed four-color test press in two ways: (1) The press can now be operated by one man, and (2) The finished color proof is returned automatically to the press operator at the feed board. Happily, outstanding presses of this model can be converted into the one-man operation press with proof return to the feedboard. Thus, on early machines, if two men were not engaged in operating the outstanding presses, it was necessary for the lone operator to follow the travel of the cylinder carriage through the 25 ft. length of the press to remove the finished proof and then return to his sheet feeding station.

(*Continued on Page 52*)

In the illustration below, as the impression cylinder nears the end of its printing stroke, the cylinder grippers open and the chain-mounted grippers in the vertical delivery rack travel downward automatically to remove the color proof from the impression cylinder. This operation is partly pictured here. The cylinder grippers have opened and the delivery grippers are ready to grasp the proof.

(Below) *The chain-mounted gripper bar in the vertical delivery rack has returned about half way up to its normal position with the proof being held by four of the grippers. After the gripper bar has reached the top of the rack, the proof will be held stationary until the cylinder carriage has returned to the operator at the other end of the press.*





"SCAN-A-GRAVINGS make it easier to get out the paper!"

says GREENEVILLE (Tenn.) SUN pressman

"In many ways Fairchild Scan-a-gravings have made life simpler in the back shop," says J. C. Johnson, pressman at the *Greeneville* (Tenn.) *Sun*. "For instance, we used to roll two mats and cast two plates of a page when there was a slight difference in illustration copy. Now we roll one mat, cast one plate with a blank base for the picture, and merely change the Scan-a-gravings.

"Another thing we like is the way we can go ahead with stereos when pictures are late. We just cast the plate with a blank base while the Scan-a-graving is being made. Then we mount the engraving right on the cylinder.

"We also mat Scan-a-gravings—with very good results. At the present time we are matting one cut that has been running every day for over four months. Printing results are as good now as they were for the first run, and the quality of reproduction is as good as direct printing.

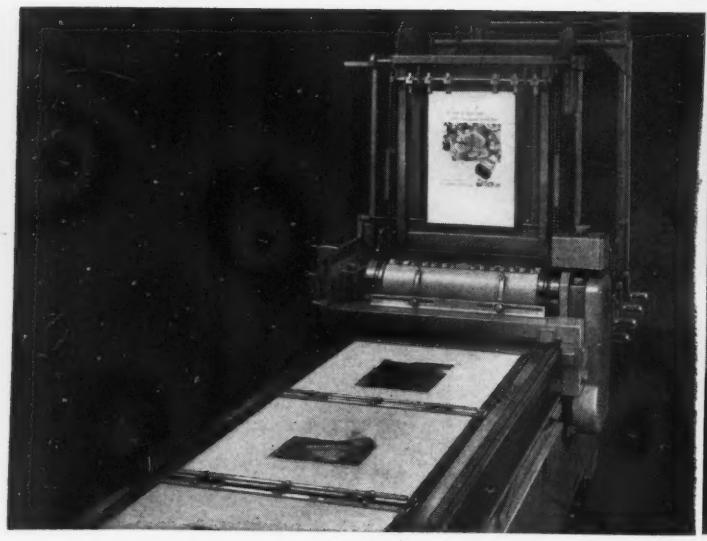
"When we first got our Scan-a-graver back in June, 1950, we naturally wondered about the engravings coming loose. But in over two-and-one-half years this has never happened, and the Scan-a-gravings have never caused press trouble in any way. Furthermore, they're tops for good reproduction in printing.

"Now that we've had plenty of good experience with Scan-a-gravings, the boys in the pressroom can see some pretty definite advantages to them. All-in-all, we like them."

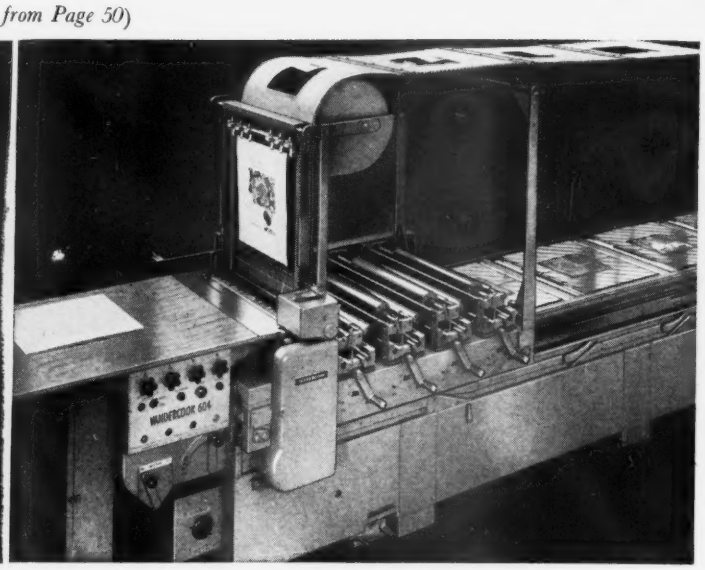
• ***Scan-a-gravings are plastic halftones*** *made on the Fairchild Scan-a-graver. For full information about how easily they will fit into your production routine, write today to* Fairchild Camera and Instrument Corporation, Robbins Lane, Syosset, Long Island, New York, Department 100-53E.

FAIRCHILD
SCAN-A-GRAVER

(*Continued from Page 50*)



(Above) *In this view, the cylinder carriage with the stationary mounted delivery rack bearing the proof is ready to start its travel back to the operator's feedboard station. The return stroke of the cylinder carriage is actuated when the operator presses a button on the control panel.*



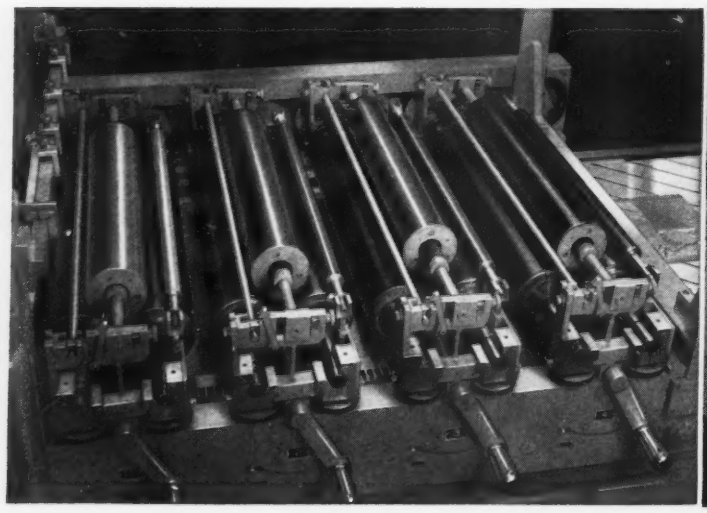
(Above) *The cylinder carriage with the vertical delivery rack has been returned to the operator's position at the feed-board. The operator now feeds a fresh sheet to the guides, then pulls off the color proof from the vertical rack as he pushes a button to start the cylinder carriage and inking mechanism in motion for taking the next proof.*

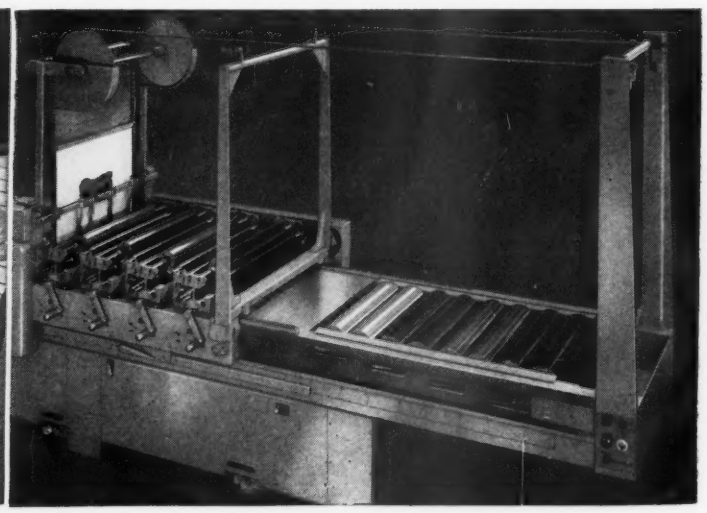
(Right) *A slight pull releases the proof from the grippers in vertical delivery rack.*

(Left) *The operator scans the proof while the press is printing another proof.*

(Below) *This is a close-up of a section of the impression cylinder carriage bearing the four inking units. Each unit consists of two form rollers, a steel vibrator and a steel ink-feed roller. The four ink feed rollers (one for each color) permit operator to add ink while cylinder carriage is at feed-board. Ink feed rollers are motionless and do not contact form rollers until the cylinder carriage is over ink drums at other end of press. Fresh ink is distributed on the ink drums before the inking units pass over the plates.*

(Below right) *Eight ink drums (two for each color) are set in motion as they come into contact with the four sets of form rollers each time printing cycle of cylinder carriage is completed.*





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NEW ENGLAND
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ONE: Our RED RUBBER BLANKETS are now the finest ever made for a press—the nearest thing to being oil-proof you can put on a cylinder.

TWO: REGAL MONOCORKS need no introduction. They have built a name for themselves that is the complete envy of the trade.

THREE: When you put an IDEAL tympan over any combination of these blankets you can be sure of a packing that can not be beat.

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Sleepeck-Helman

(Continued from Page 48)

ditions in the former plant which required frequent rehandling of the paper stock and work in process. He elaborated about waste time in the former location. He described how costly were the delays which had been occasioned because of deficient freight elevator service. He told of the necessity of unloading incoming paper at street level, moving it to the basement or second floor for storage; rehandling it laboriously as needed to the pressroom on the third floor, and again transferring the work in process to the bindery, then transferring it via the inadequate freight elevator to the shipping room on the second floor and finally transferring the finished products via the freight elevator down to street level to the trucks which were used to make deliveries to customers.

Materials Handling

Mr. Tait compared the convenience of handling materials on the one floor as done presently, with the wasteful methods due to multiple floor operation of the plant in the former building.

It was noted by this reporter that by the use of automatic combination lifting machines and transporters, skids of paper stock and printed sheets weighing about 3000 lbs. per skid, were not touched by human hands as the paper was transferred from the large paper storage room at the southwest section of the building, (partitioned off from the operating section of the plant) to the particular press at which the paper was required. Because of automatic lifts, feeding and delivery devices in the press units, and by the use of two automatic combination Yale &

William H. Sleepeck, jr., President of Sleepeck-Helman Printing Co., at his desk.

Towne electric lifting and transporter machines the handling and rehandling of paper stock and work in process is kept down to a minimum. The cost records maintained by the firm's accounting department show material dollar savings as a result of the elimination of the former waste of time in such handling of materials.

Paper Storage

The paper storage room South of the bindery and West of the pressroom, provides facilities for piling skids of paper two to four skids high. Capacity of the space is from 200 to 300 skids, ranging in weight from 2000 lbs. to 3600 lbs. each. The skids are staggered herringbone fashion and are piled at an angle of 45 deg., thus enabling the handlers to remove or pile skids expeditiously.

Work in process is transferred from the presses on the East side of the open production room to the folding machines in the bindery, then it goes to the adjoining Christensen Automatic stitcher and other machines to the automatic cutting machines and finally to the packing and shipping sections—all in one large workroom. Finished products are either shipped direct to customers, or are stored in a specially constructed customers' storage room to be shipped to branch houses as ordered by customers.

Building Details

The one-story building is a double truss affair with no posts in the one large room about 130 ft. wide and 200 ft. long, except one row of slim steel posts running the full length of the whole building. These steel posts support the trusses where they meet about 65 ft. from each North and South wall.

(Continued on Page 56)

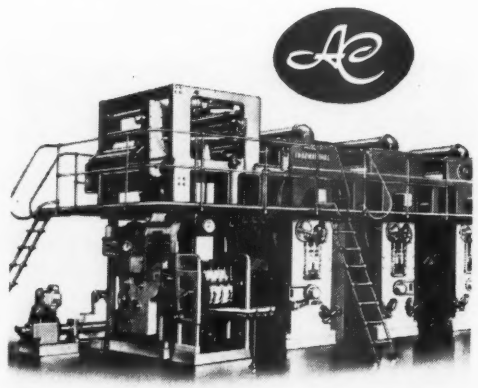
Going Gravure?... then "look at all three"

Frankenthal Gravure Presses

1 **Rotary** illustrated: standard models available for the paper converting industry (packages, decorative papers, labels, etc.), and for high-speed catalog and magazine printing; custom-built presses designed and built to specifications.

2 **Sheet Fed Palatia:** plate or continuous-surface-sleeve, high-speed models with patented pre-gripper register device and other exclusive features. Unequalled for single and multi-color reproduction. Sheet sizes 22 x 30 to 41 x 55.

3 **Sheet Fed Palatia Automat:** a compact one-man press for sheet sizes up to 19 x 26 inches. Also for multi-color proofing.



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because

WETTER NUMBERING MACHINES

give you . . .

- PERFECT NUMBER SEQUENCE through jam-proof, non-skip design.
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- ACCURATE REGISTER . . . consistently even line up of every number for neatest impressions possible.

Machine Illustrated: PARALLEL ROTARY MODEL

Cam-actuated and designed for modern rotary presses, this sturdy machine prints up to 6 numbers in an accurately registered line parallel to the impression cylinder. Rugged numbering wheels, equipped with heavy-duty ratchets, are mounted in a one-piece, curved-base steel frame. Custom-curved number faces conform to cylinder curvature. Easily mounted with Wetter QUIK-LOK clamp base to save set-up time and eliminate mounting-ring adapters. Available in either Roman or Gothic style figures.

Wetter Numbering Machines are *precision printing tools,* sturdily made for top performance even under heaviest press conditions. Action is designed to precise engineering standards; number faces are carefully ground for perfect impressions.

That's why—no matter what you try—you can always NUMBER IT BETTER WITH A WETTER.

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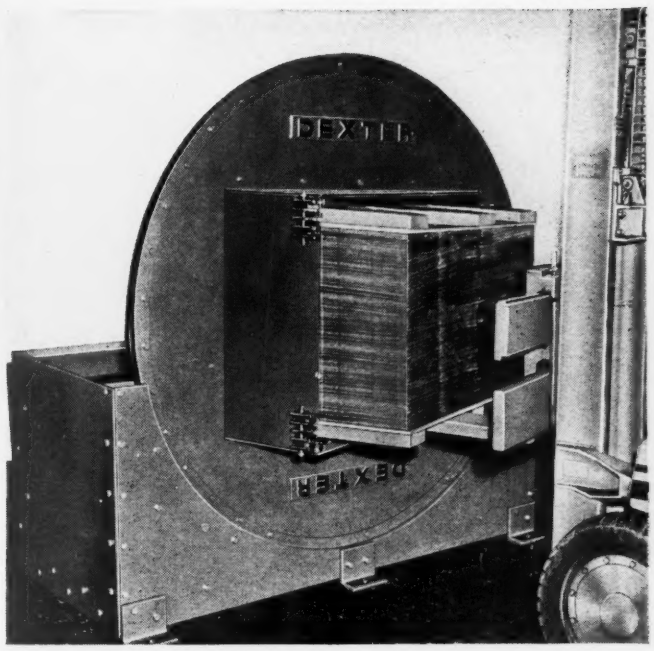
The Dexter Metal Sheet Pack Turnover



The Dexter Metal Sheet Pack Turnover

Basically, this motor driven device comprises a "wheel and box" mounted on an axle and set in supporting frame.

Sheets delivered face down from the drying oven in stacks or piles, are trucked on skid into the turnover. A second skid is placed on top of the pile and a half revolution of the turnover brings the pile of sheets to face up position, resting on the second skid.

The pile is then trucked out to the next operation.

There is no clamping of piles.

The machine is built in two sizes, one handling sheets up to 36 x 36″, the other, up to 36 x 44″. Minimum size sheet handled by either machine is 16 x 16″. Maximum permissible load is 6,000 lbs. and sheets of any thickness can be handled.

The pile is jogged in both directions into the box during the process of turning which takes approximately 20 seconds.

Additional information will be furnished on request.

Dexter Folder Company
General Sales Offices
330 West 42nd Street, New York 36, N. Y.
Boston, Philadelphia, Washington, Cleveland, Chicago, St. Louis
Agents in principal foreign countries

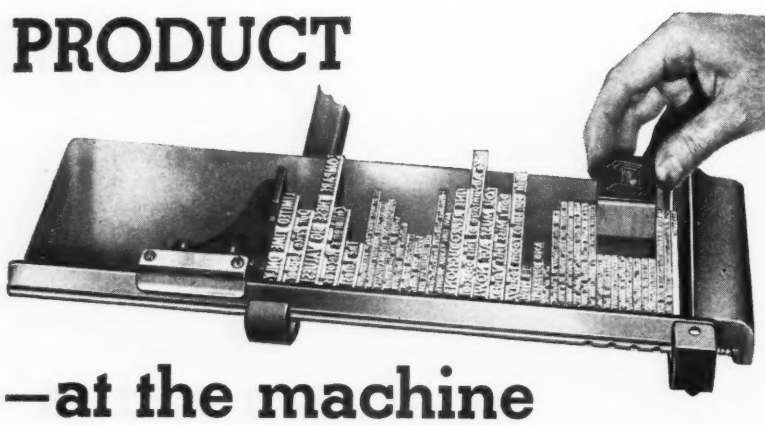
Sleepeck-Helman

(**Continued from Page 54**)

The curved ceiling is from 12 ft. to 18 ft. above the floor. The row of 12 ft. steel posts which support the ends of the two trusses being 20 ft. apart, mark the middle of the building from North to South. Thus the ceiling is 12 ft. high in the middle of the large room (North and South) marked by the row of steel posts also at the East and West brick walls running parallel with them, and a max. of 18 ft. high between the posts and walls.

Mechanical ventilation and heat are provided from a central base by means of a blower system. Oil heat is used. The temperature for the large production room is kept around 80 deg. as is also the offset department operating in a separate room in the south end of the building. During the summer, temperature is maintained by means of the cooling system. Glass brick windows along the top half of the North and South walls of the building presently are apparently there for decorative purposes only, since artificial illumination of the interior is furnished by means of numerous rows of fluorescent lights—the whole lighting system having been planned by the lighting engineers.

FINISHED PRODUCT



—at the machine

Each slug drops to the galley of a Mohr Saw-equipped Linotype or Intertype accurately sawed to length —ready for immediate use "as is."

The finished product is instantly available. Any odd measure matter can be sawed to length right at the machine—run-arounds, initials, contours, ad-guts, job work, corrections.

Just set the Mohr Saw dial at 10 picas, 20 picas, 25 picas 3 points—or to any measure. The slug is sawed automatically, instantly, accurately.

Save liner changes, reduce liner investment and expense. Cast slugs to a standard 30 picas and automatically saw them to length. On combination machines a liner can be used for text, while retaining the flexibility of the full 30 picas for display.

Thousands of Mohr Saws are saving time and money in composing rooms all over the world—daily newspapers, weekly newspapers, job plants and trade plants. If you have slugs to saw—whether for one or one hundred line casting machines—the Mohr Saw is a real money-maker.

Learn the complete story of the Mohr Saw.

Write for the free booklet "Any Measure."

MOHR LINO-SAW COMPANY

126 North Union Ave., Chicago 6, Illinois

It had been noted from time to time by this writer that Mr. Sleepeck and his key men have attended technical meetings of various clubs and trade associations connected with the Graphic Arts. During a recent interview by the writer with Mr. Sleepeck, he remarked:

Check Up on Own Methods

"After each technical conference we return to our plant and recheck our own facilities and procedures in the light of any new information which we have received, and the case histories as presented to the study group. If we find that by making changes we can improve our operations, we will make the changes. Thus we keep our methods and equipment modernized, and with the kind of a setup and layout we now have in our organization and plant, we are in a position to make whatever changes we feel will improve our operations."

Then he added: "That idea of checking up on our own methods and facilities is one of the chief values we derive from attendance at trade conferences, conventions, and exhibits.

Pre-press System

Modernization of methods was noted by the writer in all departments of the plant. In the composing room pre-make-ready and precision testing machines and devices which tend to save many man and machine hours in the pressroom and also in improving quality of work were in evidence. These included Vandercook test presses, precision guages, block-levelers, lineup tables, two Taylor registerscopes, adequate material within easy reach of the skilled makeup and lockup men, and plenty of the right kind of illumination in the room itself and at the point of eye contact with the work.

A special storage space in an enclosed room about 40 ft. by 40 ft. for customers' cuts and page forms and electrotypes for repeat work, is located diagonally across the aisle from the composing room.

Company Now Buys Typesetting

In the former plant of the Sleepeck-Helman Printing Co., line-slug and Monotype composing machines were operated by the company. However, in the present set-up this work is purchased from trade typographers, thus reducing to a minimum the amount of work done in its own composing room. This department is now run on a two-shift basis to provide service for the pressroom which run on a three-shift basis.

Mr. Sleepeck does not regard the composing room of his printing plant with the same reverence as did his father who learned his trade as a youth, and loved to do typography in his own plant. Publication work under the former management also constituted a large volume of the production which called for day and night operation of slug composing machines. Sleepeck, the son, sells typography in quantities and such varieties his customers specify, or which his creative salesmen and designers indicate as desirable for particular jobs, and he governs

his purchases accordingly, since Chicago has top quality trade shops available.

Much of the machine composition work used by Mr. Sleepeck is done by the Utility Typesetting Co., Inc., of which Leighton H. Robbins is Owner and Manager, who is a tenant of Mr. Sleepeck occupying floor space at the south end of the building. Mr. Robbins, when interviewed, expressed satisfaction with the cooperative arrangement he has with Mr. Sleepeck. He started in business on his own account when he made the arrangement, and keeps his plant going day and night on a trade basis by doing work for publishers of magazines and for other printers besides doing the bulk of slug and Ludlow composition for Sleepeck. He operates three Intertypes and a Ludlow machine besides doing a lot of make-up work for his customers.

Press Modernization Policy

In the pressroom, the equipment is suited to the kind of printing the firm does, according to analyses made by the management. The policy of modernization calls for the trade-in of machines if and when they can be replaced by more suitable units. The equipment includes Miehle 74 in. automatic cylinder presses; Miehle No. 4 and No. 41 units, plus Verticals. Other job presses are utilized for imprinting and other small work.

The equipment includes a 72 in. and 74 in. Miehle hand fed cylinder presses which were needed for book work requiring long run three shifts a day. These were in operation at the former plant, but were rebuilt before installation in the new plant. As stated previously, five cylinder presses were traded before acquiring four No. 41 Miehle automatic presses and four Miehle V-50 Vertical presses at the time of starting operations in the present location. Three platen presses are used for imprinting on advertising pieces for big customers. The long runs on the No. 41 Miehles frequently go beyond the 100 thousand mark, much of it in multicolor.

Offset Department

The offset department is a newer development which is scheduled for expansion. Plenty of floor space was provided in planning the one-story building for possible expansion, areas West and South of the paper storage room being available. At present, a Miehle Offset and an EBC Willard, taking sheets approx. 22 in. by 24 in., are operated at the South end of the floor space. Two cameras darkroom (a Lanston Monotype Machine Co. and R. R. Robertson makes) have been installed.

An art department with four artists is to be enlarged because of the increase in creative work brought in by six salesmen. This new development and the offset work will not be rushed unduly, said Mr. Sleepeck, because it is his policy to make sure he is on the right track.

The building and ground represent an investment of $260 thousand. New equipment increased the investment another amount from $50 thousand to $100 thousand, depending upon allowances for trade-ins.

War Against Production Waste

The war waged against waste by the company is expressed in a poster which can be read by every employee near the registry clock at the entrance to the plant. Part of the message reads:

"What builds our business and pays our wages? Production.

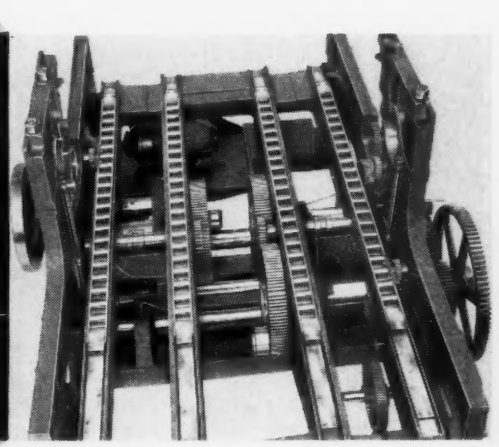
"What gives us goods and services to sell? Production.

"What keeps us all working? Production.

"Waste slashes production. When waste hits us, production drops; sales fall; company income is knocked out; job security takes the count. Don't let waste connect."

The Kansas City Branch, Friends of the Seminary, affiliated with the Jewish Theological Seminary of America, recently honored Hy Vile, Kansas City printer, as the Man of the Year. This honor was for his outstanding contribution to the community, the Seminary and the Beth Shalom Congregation over a period of many years. Mr. Vile is a partner in the Vile-Goller Printing Co. He is Secretary-Treasurer of Fine Arts Lithographing Co. and is identified with other Kansas City Graphic Arts activities.

Harmonic Motion



Like a good infielder charging, catching the ball and pegging to base in one smooth overhand arc, the driving gears of the Miller bed motion engage the hangar, slowing, stopping and reversing the bed in one smooth harmonic motion. The shorter travel of the bed and the jarless stop give Miller presses smoother operation and higher speeds.

Write for this Bulletin

Six Keys to Better Letterpress Production

MILLER PRINTING MACHINERY CO.
1103 Reedsdale Street Pittsburgh 33, Pa.

Patents

For The GRAPHIC ARTS

Covering patents issued Dec. 2, Dec. 9, Dec. 16, Dec. 23, Dec. 30.

Binding, Cutting, Perforating:

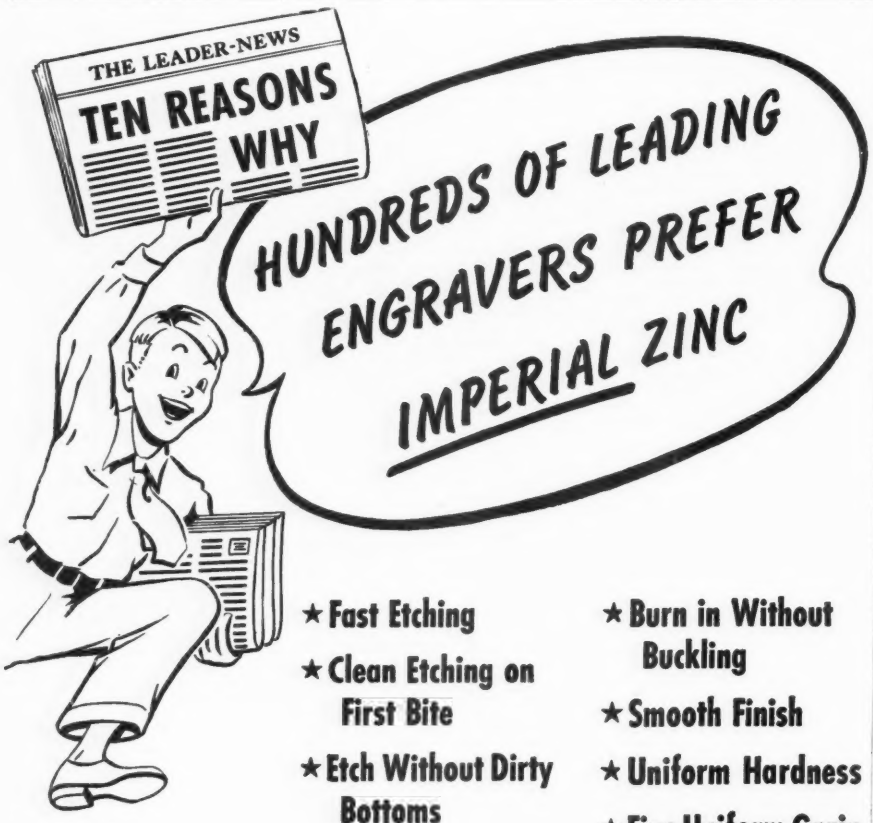
2,620,874. MACHINE FOR CUTTING INDEX NOTCHES consists of the combination of a frame supporting a clamp for a bound back of a book such as a dictionary or telephone directory where the contents are arranged in alphabetical or numerical order and a bracket pivotally mounted on the frame for movement toward and away from the frame. A carriage bearing a cutter and registering means by which the cutter may be shifted rapidly in step-by-step sequence through any desired number of cutting stations is mounted on the bracket. After the book has been provided with the notches, a rubber stamp may be used to mark the notches. Invented by Curtis D. Chase, Brighton, Mass.; Marie Lillian Chase, administratrix of said Curtis D. Chase, deceased. Assigned to The Chase Corp., Boston, Mass. Application September 23, 1950. 4 Claims.

2,621,039. SIGNATURE FLATWISE GATHERING MACHINE comprises a series of mechanical element-groups constructed, arranged and interconnected for cooperative action upon a series of stacks of signatures. There is an elevated stack hopper in each section of the machine supporting its signatures flatwise. A suction detacher means operates at the leading corner of the bottom signature in each stack. A signature separator deflects and holds downwardly the detached signature edge. A stack lifter is part of the separator to relieve the weight and insure safe extraction of the signature. A rotary drum mechanism grips and draws the signature from the stack. An endless chain receives in the conveyor pocket a series or set of signatures forming a group for final delivery. A jogging means operates in conjunction with the endless chain. A detecting mechanism completes arrangement. Invented by Paul E. Kleineberg, Easton, Pa., and Pierre Lariviere, Champlain, N. Y. Assigned one-half to T.W. & C.B. Sheridan Co., New York, N. Y., and one-half to The Sheridan Iron Works, Champlain, N. Y. Application June 28, 1947. 19 Claims.

2,621,040. APPARATUS FOR ASSEMBLING SHEETS OF MATERIAL gathers, collates or assembles flat sheets of material by a continuous and uninterrupted series of steps from a plurality of individual stations or feeders, or portions of material, from a roll or plurality of rolls into groups such as sets, packets, pads or signatures. These groups, each consisting of a predetermined number of pieces of material, may be interleaved, fabricated, bound or secured together, and at the same time detached or disengaged from any and all other groups. Collating machine has a conveyor and a plurality of gripper-bar rests for holding sheets severed from web material. There are also several feeding stations and gripper bars and grippers arranged for releasing sheets individually and in succession. Invented by Stanley R. Rinehart, Glenside, Pa. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application February 16, 1950. 11 Claims.

2,622,426. SPRINGING DEVICE FOR PRESSURE ROLLERS is for use in gluing or pressing sheet material, for bookbinding, for machines for folding paper and textiles and for use in feeding of strip material, in devices for feeding and pressing strip or sheet materials, and in many other applications which require an adjustable gap yieldably spring-urged rotating sprung roll. In the supporting structure of the device there are a pair of coacting rolls one of which has a hollow shaft. Torsional spring means extend into the hollow shaft and have an end extending from the hollow shaft and bent laterally and bear on the supporting structure. Invented by Allen J. Patch, Duluth, Minn. Unassigned. Application January 20, 1950. 18 Claims.

All new patents for the Graphic Arts are reported exclusively for Printing Equipment Engineer by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. Printing Equipment Engineer is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.



★ Fast Etching
★ Clean Etching on First Bite
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★ Close Register on Color Work

BECAUSE the manufacture of Imperial Register-Redibak Zinc is controlled for quality every step of the way, users of Imperial Zinc meet deadlines without the delays of slow etching and make-overs. With Imperial your etcher is assured of fast, smooth etching and clean bottoms on line cuts as well as halftones of 75 screen. For close register color work, the elimination of objectionable stretch and the ability to take re-etching are outstanding characteristics. Why not order a case today?

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2,623,729. STITCH PULLER is for withdrawing staples from books with a minimum of damage to books being reclaimed, and comprises a rod supported in parallel upright frame members on a fixed axis. A lever is mounted between members by passage of the rod through a slot elongated in direction of length of the lever. A finger is pivotally mounted on the lever and has a bifurcated and overlying toe, the furcations of the finger end registering with lateral edge regions of the toe. Means forcibly press the finger end toward the toe to grip a stitch engaged by the toe. Invented by Eston L. Selby, Alamo, Ind. Unassigned. Application September 19, 1950. 16 Claims.

Composing Room Equipment:

2,622,726. MATRIX SEATING MECHANISM FOR TELETYPESETTER OPERATED COMPOSING AND LINECASTING MACHINES is automatically operated by a code signal combination controlled operating unit. Line casting machine includes an assembling elevator for holding a line of matrices and space bands during their assembly, provided with an assembly slide freely movable under spring tension and held by releasable friction brake blocks released by an assembler slide release finger. Operating unit includes an elevator shaft, rotating upon termination of the selection of matrices for a line upon delivery of a special code signal combination at the end of the line. Code signal comprises a transmission with one end near the shaft and the other near the slide release finger. An operating head is mounted on the slide release and a cam operates the shaft. The assembly slide release finger is operated by means of transmission of movement through the shaft at a predetermined phase of the operation of the machine. Invented by Frederick S. Sloan, Clinton, Okla. Unassigned. Application January 28, 1952. 3 Claims.

Feeding, Folding, Delivery:

2,619,883. PORTABLE SHEET COUNTER AND MARKER relates to an improved assemblage for automatically counting and marking counted batches of sheets while being delivered to a stack such as used in the paper and other industries. A stand having a base provided with an upright rigid column comprises a lower fixed section of the unit. An upper section is telescopically vertically adjustable within the lower section. An electric solenoid actuated sheet counting device is adjustably mounted on the lower section. A marker suppy roll is mounted on the upper section. There is a pair of pivotally connected links secured to the upper column near the axis of a supply roll. An electric solenoid actuated marker stock feeder and cutter is swingably connected to one link and operatel by the counting device. Invented by Karl H. Andren, Greenfield. Wis. Assigned to Counter and Control Corp., Milwaukee. Wis. Application July 25, 1949. 2 Claims.

2,619,902. DEVICE FOR REMOVING PRINTED SHEETS FROM SWINGING PLATEN PRINTING PRESSES. The blast device is for use in removing sheets from automatically swinging platen printing presses, in which the sheets are automatically positioned on and removed from the platen by means of grippers which are mounted on the swing platen and are periodically rotated parallel to the plane of the platen. The hollow blast means is controlled in dependence upon the movement of the parts of the machine which move the platen. Air is blasted through hollow bodies provided with nozzles and prevents the rear end of the sheet not held by the grippers from rising up and also prevents the fluttering of the sheets. The blast means follows the movement of the sheet to a stacked pile at a constant distance and the air keeps the sheets uniform. Invented by Emil Hunziker, Bern, Switzerland, Assigned to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany. Application April 13, 1949. 3 Claims.

2,619,903. GRIPPER BAR MECHANISM. A gripper bar is disclosed for a sheet fed printing machine such as in Patent No. 2,231,914, to Huch. It comprises a single longitudinally extending tube with a plurality of grippers spaced at suitable intervals. An offset finger is provided to hold a free corner of a sheet upon a registering cylinder. There is a space for the finger to operate. The gripping mechanism is only required on the registering and discharge cylinders. The grippers have jaws and are operated by a rod and spring mounted in the tube. Invented by Alexander J. Albrecht, West New York, N. Y. As-

(*Continued on Page 64*)

More and more pressmen are using Tingue Press Packing to get better impressions at higher speeds. Yes, solids print solid, and every dot and serif stand up and out when your press cylinders are equipped with the right combination of Tingue packing.

NEW Tingue Tympan Paper Electronically Coated by Carborundum. .014 gauge, Roll Widths of 24″, 32″, 36″, 42″, 48″ or Cut Sheets. It assures the most perfect register and the lowest cost of production on runs in excess of 50,000.

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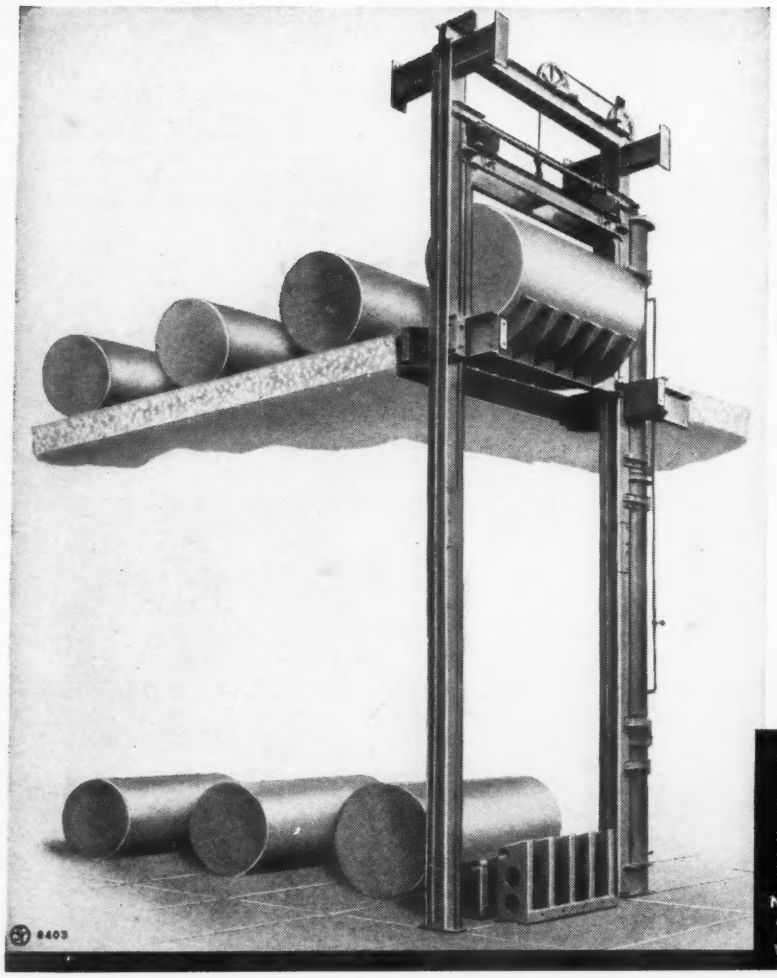
Canadian Sales Agents: Ross Whitehead & Co., Ltd., Montreal, Canada



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No more bulling ton-rolls of newsprint from truck to storage, or storage to pressroom. For a Gifford-Wood Pneumatic Drop handles a roll through a 15′ drop smoothly, easily, cushioned on air—without danger to employees or damage to paper.

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WHEN YOU THINK OF MATERIALS HANDLING... THINK OF GIFFORD-WOOD

From Stone Age to Bi-Metal

By AXEL LUNDBYE

II.

BETWEEN the time a plate is coated and exposed, its life is limited. This is because as soon as the surface of the coating starts to dry, it also starts to harden. Even if no white lights (actinic lights) are present, the coating continues to harden. This hardening process increases as the relative humidity increases. Therefore, it can be seen that if too long time is lost between plate coating and development, it might not develop clean, even though it looks clean. Some hardened albumin might stay in the grain. After the plate has run on the press a short while, the hardened albumin will show up as a tint. Sometimes it will disappear if the plate is etched or gummed, but it will usually reappear after printing is started. That is known as scumming. However, this type of scumming can be identified in the following manner: Polish a small area of the plate and then etch the area. After printing is resumed, this area will remain clean, and scumming will reappear on the balance of the plate. In this case scumming will be due to hardened albumin in the grain of the plate.

Humidity

The most important thing is to keep humidity constant. It is the change in the relative humidity that does the damage, more so than high and low humidity if either is constant.

Remember your plate must be as perfect as possible because we can never expect better reproduction than the surface from which we are printing.

All the art work, the camera work, and the process manipulations will be meaningless if the plate is not near perfection. All the best printers and presses can only print what is in the plate.

Actually, we can put it very simply: The plate is the printing process.

Plate Graining

The graining of the plate should be controlled because the performance of the paper is to a degree influenced by the grain. The grain determines the printability of the ink, because the way the grain carries the water, the press dampening is dependent on the way the grain is produced. The life of the plate and its printability is also determined by the grain. The density, smoothness, and coverage are also functions of graining as are many other functions through which the plate has to go. The shorter the grain, the better the printing from a lithographic plate. The grain is the determining factor.

If there is a variable grain in the plate, don't try to make a printing plate. It will just mean that the pressman has to fight not only his battle, but a losing one with a variable grained plate. It is strictly uneconomic to give the pressman a badly grained plate for it is a poor tool.

There are some old worn out machines that will produce only faulty variable graining. However, we will not go into this because a good man at the graining machine knows what it is all about, and he can only do the best possible with worn out equipment. Therefore, give him the right machine, the right marbles; keep his place clean, maintain or replace any machinery and materials before they are so badly worn.

To obtain the right tonal value or balance is the major factor in lithographic halftone reproduction. This operation requires precision control at the camera if good plates are required. In other words, without a good halftone a good plate cannot be made.

To make the plate, it is absolutely necessary to maintain fixed procedure and always use the same supplies and keep them under control. Last, but not least, good equipment is mandatory. If this procedure is kept we are on the way to eliminate variables in plates. Nevertheless, there are some variables over which we have no control except with air conditioning. If air conditioning cannot be had, then we have two bad factors to compete with, namely: Temperature and humidity.

KEY TO LETTERS
Used in Figs. 1 to 12 inc.

L	Light
F	Film negative or positive
(RLS)	Resist light sensitive
B	Base metal
IR	Ink receptive
WR	Water sensitive
R	Hardened light sensitive resist
I	Lithographic ink

Relative Humidity

Relative humidity—what is it? "It is the ratio of the amount of water vapor in the air to the amount which would saturate it at the same temperature; or the pressure of water vapor present to the saturation vapor pressure at the same temperature."

It is relatively easy to produce good plates in an air conditioned plant compared to an unconditioned plant. In an

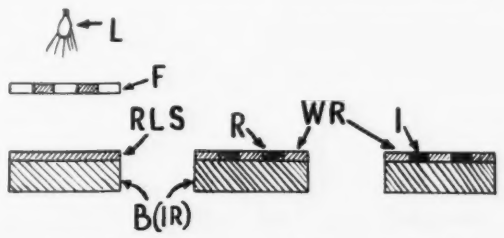
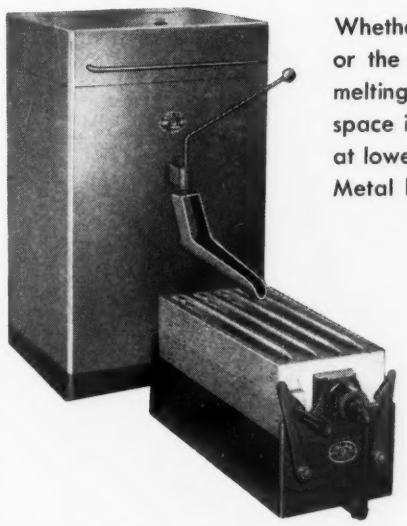


Fig. 4.—Hansleiter Plate, U. S. Patent No. 2,369,567. This plate was developed by F. H. Hansleiter and his wife. His wife, being an outstanding technician, helped him considerably. The base plate is polished brass, and being a copper alloy is high on the ink receptive scale. However, it is not as good as pure copper. Base plate is IR (ink receptive.) The polished plate is first treated by roughening it with fine pumice or finely divided chalk to give it the necessary bite. Then the plate is coated with a light sensitive resist (RLS), most likely a bichromated gum. The exposure is done through (F) positive. It is then developed. The printing area is protected with an asphalt resist, and the hardened resist (R) is removed from the non-printing area On this non-printing area is electro-deposited nickel (WR) approx. 0.00001 in. thick. Nickel is not at the extreme end of the water receptive area. After plating, the asphaltum is removed (any good solvent can be used for this purpose) and finally a special etch is used on the plate, after which it is ready for printing. Hansleiter claims further in his patent water receptive materials: Cobalt-magnesium alloy, cobalt, nickel-cobalt alloy, and iron. Ink receptive metals: copper and zinc. These plates were used during the war to print some German bank notes. Some additional claims made for these plates are that they are run in excess of one million impressions. Should it appear that the plates start scumming, it is only a matter of going over the plate with chalk, washing it off with water, adding etch, and it is again ready for printing. It is further claimed that they can be stored for a longer time without gumming up, the plate can be taken out of storage without cleaning, all ready for printing.

Modernize Your Remelting Department

with the Time-Saving, Money-Saving

NOLAN *Remelt Furnace*



Whether you use the small 600-lb. Nolan Remelting Furnace or the 5- or 10-ton unit, you get fast, efficient low-cost remelting. This modern, compact remelter is designed to save space in your Remelt Department . . . to give speedy remelting at lower cost . . . to provide easier, safer operation. The Nolan Metal Remelter quickly pays for itself out of savings.

Let us know what your remelting requirements are. Tell us space available for furnace . . . and we will submit quotations and prints for a New Modern "Nolanized" Remelt Department that will reduce your remelting costs surprisingly.

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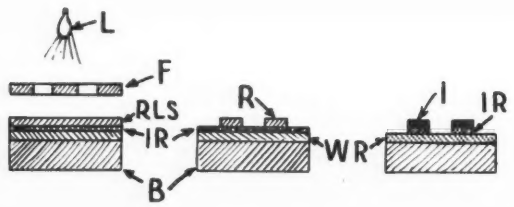


Fig. 5.—Boekelman's & Elfer's Plate, British Patent No. 446777. This plate is used in Great Britain with great success by the Berkshire Printing Co., Ltd. The base is either iron or copper (B), and on it is fastened a thin sheet of lead or lead alloy (WR) water receptive. On top of this lead is electrodeposited a very thin film of copper (IR) ink receptive. The film (F) is a negative and is printed down by means of light source (L). The light sensitive resist (RLS) is undoubtedly of the bi-chromate family. The plate is developed and after that an etch is used which attacks the copper surface, but not the lead. In the patent it is stated that the copper should not be more than 0.01 in. thick, and probably not more than 0.005 in, but we understand that the thickness of the copper is much closer to 0.0005 in. It is claimed further that the process involves an electrolytic process to apply lead (WR) to a strong base plate of either steel or copper, and by electrical means deposit copper on top of the lead (IR) ink receptive. No details are given for the resist used. But we assume, as is stated earlier, that it is the bi-chromate family. If this patent were taken out in the United States without additional information being divulged, it would not be worth much. Besides, this plate calls for accurate press adjustment because of the softness of the lead.

unconditioned plant, the platemaker will have to make changes for every change in temperature or relative humidity. Even though he has good instrumentation in the platemaking department, he will have to do a lot of guessing. If he is lucky, and guesses correctly, fine. Otherwise it is too bad. However, a good operator can minimize the trouble by knowing what is happening on the outside and making condition changes on the inside before anything happens.

Press Conditions

All variations we have produced in the above operations are handed to the pressman without a word. Before the press operator even starts his complicated procedure of putting ink, water, and paper on the press, we have given him all the accumulated difficulties of others. Therefore, give the pressman as nearly perfect a plate as possible, or at least a good plate, because dampers and dampening units vary continuously. However, we do have control over them to a degree. The inking mechanism is never foolproof, but is considered within limits. Blankets are seldom uniform in thickness or in hardness. Blanket porosity is another variable. Lots of trouble can be eliminated by careful blanket makeready. The press itself should be in good mechanical condition and kept that way by proper maintenance—not repairs.

Ink Problems

The ink must be properly selected for the paper on which it is to be printed, and the ink maker should make the formulation. The ink people have trained technical personnel. It is their business to compound inks properly. If the press operator thinks it is necessary to add something to the ink, first discuss it with the ink supplier's technical staff.

It must be admitted that the ink problem on a lithographic press is rather complicated to say the least. The intelligent approach is to go at it in an orderly manner.

Paper as Complex as Ink

Now we come to paper. Paper is as complex as ink. It is full of variation. Temperature and humidity can play havoc with paper, especially if the pH of the water is not right. The same is true if the ink and finally the press are not right. Paper is one of the components in printing that is the most variable. Remembering it is a wood fibre (cellulose) it will change with the weather. Worst of all, if our dampening units should add too much water, the situation is aggravated. The weather is unpredictable, and under improper control, we might add water to the sheet. Remember that paper swells or shrinks as it absorbs or gives off water, and it does swell more across the grain than with the grain. The paper tends to swell or shrink more on the wire side because the fibers are not so closely knit, and because of this difference in moisture content, the paper curls at the edges. When paper is stored, it absorbs more moisture at the edges than in the center, and that gives a wavy edge. If cold paper is placed in the pressroom, it will absorb moisture. If the paper is warmer than the room, it gives off moisture. In the cold sheet we will get wavy edges and in the other we get a baggy sheet.

Most of this paper trouble can be elminated by using roll paper on a web offset press.

If we use a coated sheet one side only, then the uncoated surface will take in moisture much faster than the coated.

The best and simplest means to overcome most of the trouble is to install air conditioning throughout the plant. It is expensive to start with but is cheaper in the end. However, air conditioning is not as necessary when using web offset presses.

When we look at all the complications in preparatory, camera, platemaking,

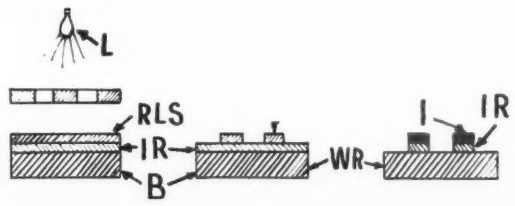
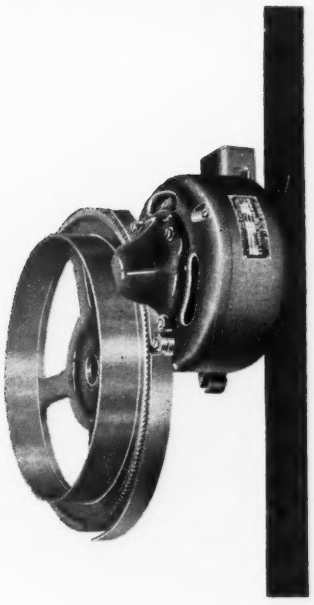


Fig. 6.—Alkuprint, developed by Mr. Horn, and described in British Patent No. 475,588. The base plate (B) is grained aluminum or aluminum alloy. It is water receptive (WR). It is stated that the main reason for graining is to assist in electroplating a fine adhering film to the base. It is difficult to get a good adherence to aluminum by electrochemical means. The electroplating film can be by copper, nickel or silver. Copper is at the extreme end of the ink receptive scale. The rest of the metals mentioned are down from the extreme. We would assume that the copper is used, and furthermore, that even though the metal is grained, it is given a treatment in the zinc immersion bath to facilitate electroplating on the aluminum. The film (F) is printed down as a negative by means of light source (L) onto the light sensitive resist (RLS). Then the non-printing area is etched down to the electrodeposited film (IR) down to the base aluminum (W.R.) and finally etch the aluminum with nitric acid to allow it to shed the ink. It is recommended that a cyanide plating bath be used for electrodepositing the film to the aluminum.

HAMILTON LAYOUT KIT

A plant layout kit is available from Hamilton Mfg. Co. It consists of a 17 in. by 22 in. heavy stock sheet scaled to ¼ in. to the ft. The sheet is folded in quarters. The reverse side bears instructions of making a layout, suggestions for arranging equipment, and what to do with it afterwards to make sure the proposed layout is efficient. Enclosed in the folded sheet are nine separate sheets. These contain first, scaled templates which can be cut out to represent many items in multiple of Hamilton type cabinets, makeup trucks, imposing tables, cut storage cabinets, benches and the like. Other templates furnished are for Intertype, Linotype, Ludlow and Monotype equipment. Other sheets bear templates for well known makes of presses. The kit has been meticulously prepared and is well printed in color. A copy may be obtained by mentioning PEE No. 570 when making your request.



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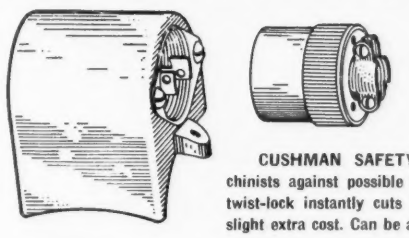
Cushman Safety Plug...



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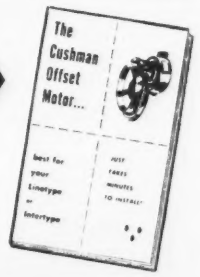

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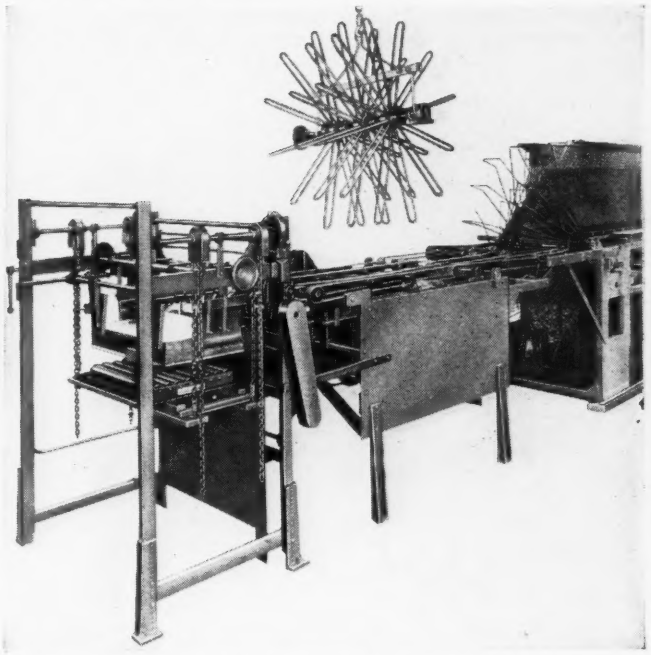
Removes and stacks lithographed metal sheets from the drying oven without manual labor



The Dexter Oven End Stripper and Pile Delivery

The Dexter Oven End Stripper automatically removes lithographed or coated ferrous sheets from the wickets at the discharge end of the drying oven, without manual labor and with a minimum of supervision.

The device handles sheets from 22 to 31 gauge and in sizes depending on the design of your oven wickets, at speeds of up to 100 sheets per minute.

Sheets are delivered from the oven face down. If face up position is desired, sheets are inverted by a turnover reel from which they pass to the pile delivery.

To permit quick change from face up to face down delivery or vice versa, an electric hoist is provided to raise the reel out of the travel line.

Should a jam-up occur in transferring sheets from the oven wickets to the rolls or from the turnover wicket to the belts, a feather switch operates to stop the line.

The pile delivery used in connection with turnover device can accommodate up to 100 sheets per minute, to pace the oven stripper, and has an elevator capacity of 6,000 lbs.

Dexter Folder Company

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Agents in principal foreign countries

the press, ink and paper elements, we wonder why we are in the printing business. Is trouble that dear to our hearts?

We stated that we could eliminate most of our paper trouble by using roll fed presses. We can minimize the water content in the dampening unit by using bimetallic lithographic printing plates. By using less water we can minimize the emulsification of ink and water.

Web Offset Printing for National Magazines

For web offset printing to take its place in printing national magazines, it is necessary to design a plate and a press which will give as good or better result than is now obtained with letterpress or rotogravure. At the same time, the plate must yield a minimum of 2,000,000 impressions without losing the quality from first to last copy, besides permitting running the press and the plate at a speed in excess of 1000 f.p.m. Also the final product must be cheaper than with letterpress or rotogravure.

Up to the present time, the albumin plate has not shown it is capable of filling this bill. In the last 15 years, bi-metallic and tri-metallic lithographic printing plates have been in the news. Maybe we should not call it lithography. Offset printing plate would probably be better. By now we have quite a collection of bi-tri-metallic plates. We will describe several of them here, twelve to be exact. There are still at least six more known plates, but we have not been able up to the present time, to obtain any authoritative proof that these six other plates have produced satisfactory printing results. The plates described here will only be the bi-tri-metallic plates, using water as a dampening medium. Bi-tri-metallic plates employing mercury or other dampening means will not be covered.

(*To Be Continued*)

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Patents

(**Continued from Page 59**)

signed to R. Hoe & Co., New York, N. Y. Application March 26, 1947. 6 Claims.

2,620,033. SHEET DELIVERY MECHANISM is disclosed for conveying sheets from a printing press operating at high speed and depositing them upon a delivery pile while they are moving at a low rate of speed. The mechanism employs two conveyors; one upwardly traveling endless conveyor and a second horizontal variable speed endless conveyor. A rotary transfer device is interposed between them. It has sheet grippers adapted to take sheets from the first conveyor and transfers them at the surface speed of the first conveyor to the lower run of the second conveyor. There is a cam controlled driving means to decelerate the second conveyor, then accelerate it and then decelerate it before releasing the sheet thus eliminating interference with succeeding sheets. Invented by James R. Wood, Cleveland, O. Assigned to Harris-Seybold Co., Cleveland, O. Application May 27, 1946. 8 Claims.

2,620,994. WEB RENEWING MECHANISM FOR PRINTING AND OTHER MACHINES. The apparatus comprises a rotatable support for a plurality of web rolls, one of which is an active roll and another a replacement. A belt engages the periphery of the latter. A gear change drive device operates to drive the belt selectively at two different speeds, one to speed up the replacement roll from rest to speed of the web passing from the active roll, and the other, a slower speed, to impose drag on the web when it is being drawn from the replacement roll. Invented by Thomas R. Bennett, Kingbury, London, Eng. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application May 9, 1950. 2 Claims.

2,621,865. WEB ROLL CHANGER is applicable to roll changers of the three-arm reel type as covered by patent Nos. 2,063,098, 2,155,130, and 2,205,498, and to those in which the new roll is brought into contact with the running web and may be run in contact with same for some time prior to making the splice, such as disclosed in patent No. 2,596,189. The present invention provides for stopping the reel rotation when a replacement roll carried thereby arrives at a predetermined position, using a photocell which may be set to

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

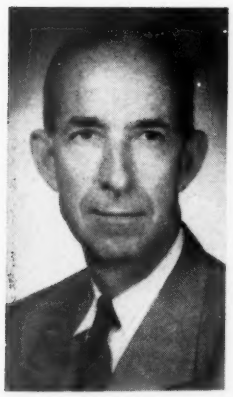
respond to position of the periphery of the replacement roll. Invented by William C. Wieking, Woodhaven, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. 2 Claims.

2,621,928. FEED MECHANISM FOR FLEXIBLE SHEETS SUCH AS ENVELOPES is adapted to feed envelopes in succession from a stack to a printing machine and uses a stationary shaping plate located at or near the translation point—where the sheets are to be withdrawn one by one from a moving stack — which in cooperation with suction acting through openings in the plate holds the leading sheet of the stack in an exactly predetermined position for the length of time necessary to enable the onward feeder to gain control of the particular sheet so held. Invented by Jacob R. Lauffer, Valley Stream, N. Y. Assigned to Miller-Lauffer Printing Equipment Corp., New York, N. Y. 17 Claims.

2,623,703. WEB TENSION APPARATUS. For use in controlling the feed of a paper web to a high speed rotary printing press, the tension device maintains constant tension on the web regardless of web roll diameter and at widely different speeds of operation. A brake variably opposes rotation of the web roll. A pilot roller, moved by changes in tension of the web, varies the braking force. Resilient means connect a weight to the brake for energizing the brake and permitting it to be rapidly varied. Invented by Kenneth G. Laycock, Shavertown, Penn. Unassigned. Application Feb. 13, 1948. 12 Claims.

Additional Patents Held Out—Because of space limitations, it was necessary to hold out a number of Patent Summaries from this issue. These will appear in next month's issue.

EXECUTIVE Qs



Claude R. Beaver is the newest representative at the Atlanta (Ga.) branch of Ideal Roller & Mfg. Co., 603 Parkway Dr., N.E. Beaver formerly traveled the Ideal southeastern area as an equipment and supplies representative.

The promotion of Morris W. Rice to Sales Representative for the Great Lakes territory was recently announced by Matrix Contrast Corp. Rice has been service representative for Matrix Contrast in Ohio and Indiana since his release from the U. S. Air Corps in 1947. He will make his headquarters at the Western District office of the company in Chicago, and will cover the states of Michigan, Indiana, Ohio and Kentucky.

Robert Burke has been appointed Sales Representative for the Pennsylvania-West Virginia territory of the Ink Div. of J. M. Huber Corp. The announcement was made by Louis A. Lara, General Sales Mgr. of the Division. Burke will work under the direction of William J. Carey, Eastern District Sales Mgr. Joining the Huber organization following his graduation from Wesleyan University in 1950, Burke was trained for a year in Huber's factory, laboratory and sales service program. He was then transferred to the Central States District, where he covered part of the Northwest Territory.

(*Continued on Page 68*)

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A Forward Look

By ORVILLE DUTRO*

**President, Orville Dutro & Sons, Inc., Los Angeles.*

PERHAPS you have been giving some thought as to ways and means of making the months ahead bigger and better for your business. There are several approaches: More salesmen, more calls, harder drive, better prices—these things are basic in business. But, why not be realistic? Ask yourself, "What have my salesmen got to sell?" In nine chances out of ten it is quality, service and reliability. Equipped with the proper brief case full of samples and references, no doubt your salesman can back up his claims. The weakness in this approach lies in the fact that each of your competitors will have the same story. So it seems fair to say that the salesman with the most drive, best presentation, personality and appearance will get the most business as in each preceding year. But, quite aside from the basic elements of doing business, would it not be better to give your salesmen some real ammunition? Some products that your competitors cannot produce? It costs a lot of money to run a sales organization. Are you going to run a Korean war or are you going to fight to win? If you fight to win, you may need some high speed rotary presses that can do several operations simultaneously. This kind of equipment will provide your salesmen with ammunition — ammunition that will bring in new accounts and hold old ones, increase profit and decrease relative overhead.

Many printing companies added rotary equipment last year. There is a movement in the printing industry toward rotary equipment. Don't think of all rotary web presses as machines that print only newspapers and cheap salesbooks. They do that too, and no one tries to compete with them. With proper rotary equipment, fine quality work is being done. Web rotary presses produce millions of impressions of process color every day. And don't count on the fallacy that rotary equipment cannot invade the short run field. In 1917 to 1922 the automatic feeder invaded the printing industry, so the web rotary may invade the printing field before long.

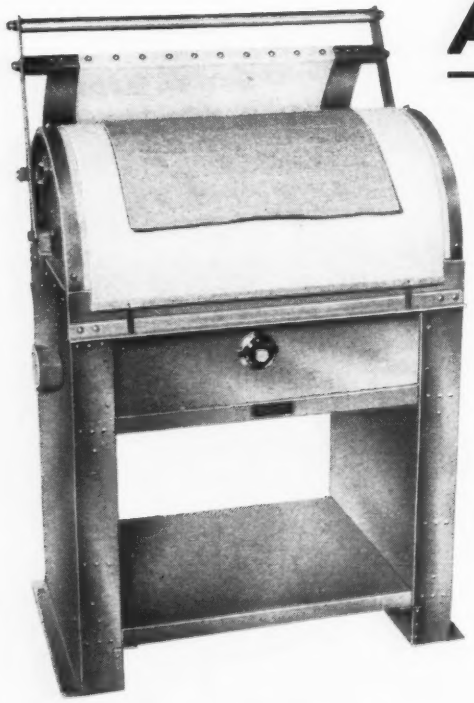
Here are some of the reasons. Rotary presses are fast, they are of simple construction, are easy to operate, and can be made to combine several operations such as multiple colors, front and back printing, numbering, perforating, punching, creasing, folding, etc. Imprints and changes can be accomplished by comparatively simple means, and makeready and down time is at the minimum. It is now possible to combine rotary work with subsequent operations such as collating, binding, stitching, embossing and even die cutting.

Entry in the rotary field now is not a pioneering operation. Difficulties such as the carrying of large paper inventories, obtaining carbon paper, plates, ink, glue, and needed auxiliary equipment largely have been overcome.

There are paper converters who cater to rotary printers. These converters will sell any quantity of paper down to a single roll, any kind, any width, any color, and will ship within 48 hours and bill it through any reputable paper jobber in the United States. Carbon paper companies will make carbon paper to meet any requirement and will ship it to any location within a few days. There is a source of carbon paper supply near you. There are platemaking services in most leading cities that will handle everything from type composition to making the most complicated plates for any printing process to meet the requirements of rotary printers.

Ink companies throughout the United States have done an outstanding job of supplying inks for every printing process, for every kind of paper and for printing from every type of plate—this to cope with the increasing speed of rotary presses. There is auxiliary equipment for the rotary printer—from equipment for making his own plates or coloring his own paper to equipment for loading the finished jobs on the truck.

New types of rotary equipment on the drafting boards of Dutro-Western Gear as well as those of other manufacturers will appear on the market soon. These machines will affect many products of the printing industry from printed forms to pamphlets, books, magazines, catalogs, directories, labels, stationery and greeting cards.



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Scan-a-graver in Mobile Unit

THE Fairchild Scan-a-graver show has gone on the road in a mobile demonstrator called the Scan-a-Van. According to announcement by John H. Clough, President of Fairchild Camera and Instrument Corp., the Scan-a-Van is used to show newspaper executives how the electronic engraver produces halftone cuts.

The 28 ft. truck is a self-contained newspaper photography and Scan-a-graving department. Visitors enter a room 7 ft. wide and 11 ft. long in which are installed a 65 screen Scan-a-graver and the new table-top 85 screen Cadet. The room also contains upholstered seats, a table-cabinet containing volumes of tear sheets showing how the Scan-a-graver is used in newspaper installations.

From this main room visitors moving to the rear of the Scan-a-Van enter a room 4 ft. sq. in which are all the tools and materials for trimming, mounting and proving the plastic halftones.

Adjacent to the work room is a 3 ft. by 4 ft. darkroom which completes the total area which is 105 sq. ft.

This same equipment installed in the same space in a newspaper plant, it is stated, is capable of producing 400,000 sq. in. of Scan-a-gravings per year based on a 37 hr. week during which the machines are not operating 20% of the time.

Mr. Clough said one Scan-a-Van has been built and that this mobile unit will be scheduled for newspaper visits on the East coast only for the present.

Built by the Gerstenslager Company,

Wooster, O., at a cost of $20 thousand, the Scan-a-Van is air conditioned.

Other features include a gravity fed water supply with scavanger drain system, constant voltage generator, and ingenious use of storage space.

In the work room is a Model 45 Morrison saw-trimmer for cutting the base before or after the cuts are mounted. A Model 00 Vandercook proof press is installed for proving the mounted plastic halftones.

The darkroom is equipped with stainless steel sink, storage space and the necessary tanks, trays and supplies. A Graflarger back on a Crown Graphic Camera completes the darkroom.

A Polaroid Pathfinder Camera, continued Mr. Clough, is independent of the darkroom and serves in the Scan-a-Graver room to show how visitors can have a 1 col. cut ready to print in 8 min. after snapping the picture.

The Scan-a-Van recently completed its first trip from Ohio to Fairchild's new $3 million factory in Syosset, N. Y. During February and March the Scan-a-Van is scheduled to visit 12 Eastern and Southern states.

Norman Emerson, former press photographer and Scan-a-graver operator for the Barre (Vt.) *Times* is captain of the Scan-a-Van.

Second District Conference

The annual conference of this Second District of the Intl. Assoc. of Printing House Craftsmen will be held at Hotel Ten Eyck, Albany, N. Y., April 25. Clubs in the Second District are Adirondack, Albany, Newark, New York, Utica and Syracuse. In addition to several speakers, the program will include a Circle of Information feature designed for informal discussion of individual production problems. Harry Shaughnessy of Williams Press, Albany, N. Y., is General Chairman of the Conference.

Executives

(Continued from Page 65)

William E. Gibbons has been made production manager for the Portland (Ore.) *Journal*. Announcement was made by General Mgr. Wm. W. Knight, of the *Journal*. This is a newly created administrative position. Gibbons will be in charge of all mechanical departments. He has been production manager of the Chicago paper since 1944. In addition he was production supervisor for the Detroit, Milwaukee and Pittsburgh Hearst newspapers. Gibbons was initiated into the newspaper production game in 1922 when he became pressroom production clerk at the *Herald Examiner*. During the ANPA June fiscal year, Gibbons has served as chairman of the ANPA Mechanical Committtee of which he previously has been a member.

L. J. Chase has been appointed Resident Mgr. of the Spartan Printing & Publishing Co., Sparta, Ill. The company is an affiliate of the World Color Printing Co., St. Louis. Several million comic books are produced at the Spartan plant each month. Mr. Chase was production manager of the St. Louis *Star-Times* for 18 years.

George Talbot has been appointed Sales Mgr. of Roberts Numbering Machine Co. Talbot has been associated with the Roberts company for several years in the production end of the business. Prior to this, he was with the Reeves Instrument Co. and Sperry Gyroscope Co.

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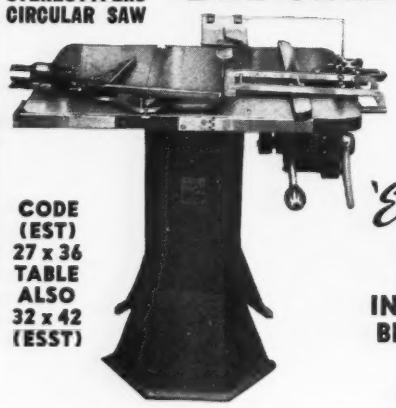

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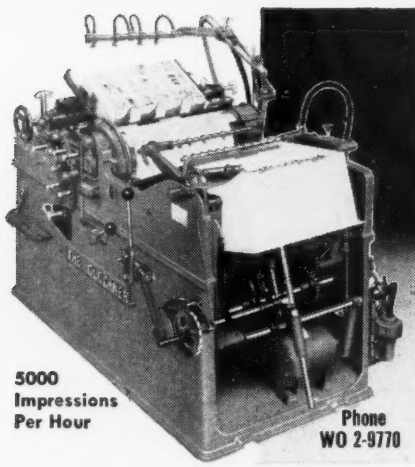

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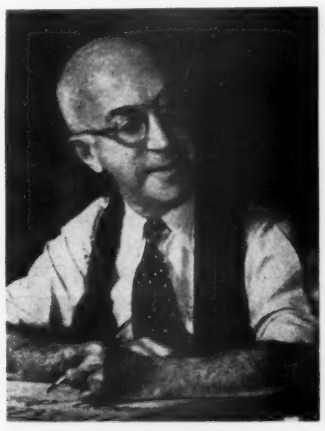
Raymond A. Butcher has been appointed Composing Room Foreman of the San Francisco *Chronicle* it has been announced by Fred E. Gross, Mechanical Supt. Butcher, 47, came to the *Chronicle* as a journeyman printer in 1927. He has been copy cutter for the past 12 years.

Deviny Retires

Although there had been no announcement from official sources in Washington, D. C., *Printing News* in its February 21 issue, reported the retirement of Public Printer John J. Deviny, effective February 28. Mr. and Mrs. Deviny will spend a few weeks in Florida. At the moment, he has no immediate plans for the future. Deviny is one of the most beloved persons in the Graphic Arts industry. In the event no appointment is made immediately, Deputy Public Printer Philip Cole will manage the world's largest printing plant.

Sol Hess, Art Director, Lanston Monotype Machine Co., died suddenly on January 30. Mr. Hess, 66, had but recently been released from the hospital after three months' treatment for a serious heart ailment. He had been associated with the Monotype firm since



SOL HESS

1902. Hess was well known as a designer of new type faces, and as an adapter and fitter of types. As a type designer, he is credited with some 50 type faces, and was outstanding in the development of type families. He was a member of the American Institute of Graphic Arts and the Philadelphia Graphic Arts Forum. He was recently selected by the *Trade Compositor,* official publication of the Intl. Typographic Composition Assoc., as the Type Man of the Year 1952.

Will Resume Shortly

The series, The ABC of Offset, which has been appearing in Printing Equipment Engineer, has been interrupted because of unavoidable circumstances. George Jos. Lenzer will resume the series commencing in an early issue.

Oil City Twin Plant

(Continued from Page 42)

which in turn are connected to and actuated by wire service automatic tape reperforators. The reperforators are operated direct from AP-TTS newswire service. The news comes in via AP from 3 p.m. to 2 a.m. for the morning paper, and from 6 a.m. to 3 p.m. for the evening paper. Approx. 4000 lines of type matter are composed in 8 hrs. The Comet machines are automatically operated from 28 to 30 hrs. weekly. Local news is cast on the Comets by tape produced in the composing room. The Comet machines are also operated manually when occasion arises.

Makeup Department

Some page makeup tables are used in the makeup department. Makeup trucks, however, predominate. One of the nice features is that the racks to hold materials

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Mechanical Executives of the Oil City (Pa.) *Derrick* and *Blizzard* are shown from left to right as follows: Jack Cross, Composing Room Foreman; Kenneth Rapp, Mechanical Superintendent; and Willard L. Oelkrue, Press-Stereotype Foreman.

such as the makeup men use in the way of leads, slugs, cutoff rules, dashes and the like are contained in low racks just above the page trucks. A steel angle iron strip anchored to the floor underneath the material racks furnishes a stopping point for positioning the trucks.

With the exception of the dump man's cabinet, a clear view through the length of the composing room may be obtained.

Fluorescent lights mounted underneath the material racks furnish closeup illumination for the makeup men. This is an excellent arrangement and makes for easy and rapid makeup of the page forms.

Mobile Truck for Servicing Linotypes

V. E. Coleman, Composing Machinist, nurses along the eight Linotypes. To make his work easier and quicker, he had made a mobile truck upon the top of which are mounted a Romyns spaceband cleaning machine and an Ewald pot pump plunger cleaning machine. When certain minor repairs can be anticipated, suitable tools and parts can be trundled to the proper machine. This truck is a great time-saver.

The metal remelting room is equipped with a Surface Combustion Furnace and Imperial Type Metal pig molds.

Stereotype Department

In the Stereotype Department, as in other departments, will be found modern equipment. For molding the newspaper pages a Duplex mat roller is used. A Sta-Hi Former dries and forms the mat to proper curvature. Plates are cast in a Wood Pony Autoplate. The furnace is fired with Kemp gas immersion system. Other equipment in the room for producing flat work consists of a Hammond Easy-Kaster box, Plane-O-Plate Router and a Sta-Hi Curved Plate Router.

The Pressroom

The pride of the Derrick Pub. Co. is the new Goss Universal 40 page, two-plate-wide press. Usually, this press is operated at 36,000 papers per hr. A Cutlet - Hammer Conveyor delivers the papers direct to the mailing room.

Mailroom

The Speedaumat System for addressing is used in the mailroom. A Gerrard Bench Model Wire Tying Machine bundles the papers. For separate copies, a Crawford Single Wrap Machine is used.

THE PRIDE OF GAVRIN PRESS...
LYNCH Series E Paper Packaging Machine!

Vol. 6, No. 8 • Published by Arthur J. Gavrin Press, Inc. — Manufacturers of One-Time Carbon Interleaved Snap-Easy and Continuous Forms • AUGUST, 1952

PACKAGING MACHINE WRAPS FORMS IN RAPID FASHION...

Our comparatively new packaging machine is put into operation immediately following cutting on the guillotine cutter. The packaging phase is the next to last step in forms production—the last and final step being the packing of the packages into corrugated boxes for shipment.

Full scale production found Gavrin Press on the top of the list for a Lynch Packaging Machine. Measuring nine by four feet, the machine is rectangular in shape standing well over four feet high. Sitting with a motionless outward appearance on the plant floor, the internal mechanism functions like an endless legged centipede—to our advantage. After setting the machine to the required length, width and thickness of the desired parcel, the forms are fed on a conveyor belt to the rear side of the machine direct from the cutting (Guillotine) operation. Inserted one stack at a time, the packaging machine squares up all sides, cuts kraft wrapping paper to the correct length, applies adhesive to both ends after the package takes shape, firmly presses mucilage and paper together and winds up the operation by ejecting the package to a second conveyor belt located at the front end of the machine.

Three operators are all that are required to perform the entire phase of the preshipment operation, which includes the cutting and trimming of the forms, placing cut forms on the first conveyor belt, inserting into machine in stack form and loading skid that is forwarded to the shipping department from conveyor belt number two. A job normally requiring eight people is handled by the machine in less than half the time with the assistance of three people.

To the many visitors to Gavrin Press, the Lynch Packaging Machine rates high on the "I'd like to see" portion of the guests plant tour. Five or ten minutes are usually spent at the machine by visitors—gazing upon the machine with the intent interest of a young boy that has discovered his first frog in a cool brook.

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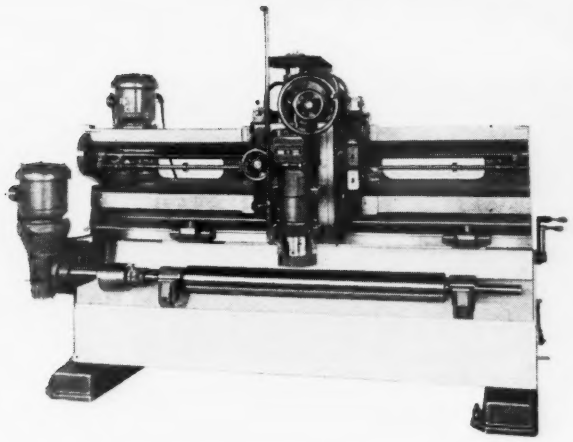

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Newspaper Chases—Make-Up Trucks

WESEL MANUFACTURING COMPANY
Electric Proof Presses—Flat Routers

THE MORRISON COMPANY
Composing Saws

EASTERN FOR ECONOMY

EASTERN NEWSPAPER SUPPLY, INC.
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Formerly Asst. Production Mgr., Robert G. Watson has been appointed to the position of production manager of American Colortype Co., Clifton, N. J. He succeeds the late Joseph S. Rauscher, who passed away in January. Watson started with the company in the New York office in 1934. He was made assistant to Mr. Rauscher in 1936.

Conference Dates

(With Organization Names and Principal Officers)

American Photoengravers Association — 1953 Convention, Hotel Statler, Boston, October 12, 13 and 14. President, D. H. Murnik, Oakland National Engraving & Gravure Co., Oakland, Calif.; Frank J. Schreiber, Executive Secretary, 166 W. Van Buren St., Chicago 4, Ill.

ANPA Mechanical Conference—1953 Conference, Milwaukee, Wis., June 15, 16, 17 and 18. Conference sessions and exhibits to be held in Civic Auditorium; Conference headquarters, Hotel Schroeder. Chairman of the Committee, William E. Gibbons, Production Mgr., Chicago (Ill.) *Herald-American;* Manager ANPA Mechanical Dept., Vernon R. Spitaleri, 370 Lexington Ave., New York 17, N. Y.

Fifth District Craftmen's Conference — 1953 Conference, Olds Hotel, Lansing, Mich., June 26 and 27. Secretary-Treasurer, Robert Wolf, Richardson-Taylor-Globe Co., 4501 Mitchell Ave., Cincinnati 32, O.

Graphic Arts Trade Association Executives—President, Robert Hostetter, Printing Industry of Pittsburgh, 3124 Jenkins Arcade Bldg., Pittsburgh 22, Pa.

Gravure Technical Association—President, John E. Hazel, Room 4800, 30 Rockefeller Plaza, New York 20, N. Y.; Secretary-Treasurer, Frank Sportelli, International Color Gravure, 39 W. 60th St., New York 23, N. Y.

Craftsmen Seek Members

A GOAL of 2500 new members by June 30 of this year has been set by the Membership Commission of the Intl. Assoc. of Printing House Craftsmen, Inc. George Wise of Cleveland, Chairman of the Commission, has sent out a questionnaire to all local club presidents seeking information and ideas to help the Commission coordinate plans for a successful membership campaign. Prizes will be awarded at the Dallas convention in September to the three local clubs attaining the highest percentage gain within three categories of membership.

Great Lakes Newspaper Mechanical Conference—1954 Conference, Claypool Hotel, Indianapolis, Ind., January 10, 11 and 12. President, Horace Parker, Mechanical Supt., Richmond (Ind.) *Palladium-Item;* Secretary-Treasurer, Don Clark, Stereotype Supt., Grand Rapids (Mich.) *Press;* Chairman Mfrs. and Suppliers Committee, Joseph W. Kaercher, Linotype Representative, 5311 Broadway, Indianapolis, Ind.

Illinois Newspaper Mechanical Conference — 1953 Conference, Hotel Jefferson, Peoria, Ill., September 26 and 27. President, Thomas Lowry, Peoria (Ill.) Newspapers, Inc.; Secretary-Treasurer, Wilbur L. Augspurger, Peoria (Ill.) Newspapers, Inc.; Chairman Mfrs. and Suppliers Committee, Joseph D. Goggin, Newspaper Publishers Supply Co., 1639 N. Lorel Ave., Chicago 39, Ill.

Intl. Assoc. Electrotypers & Stereotypers—1953 Convention, Statler Hotel, Detroit, Mich., September 22, 23, 24 and 25. 1953 Spring Conference, Hotel William Penn, Pittsburgh, Pa., April 13 and 14. President, Walter C. Dohm, Norman-Dohm-O'Flaherty Co., Inc., 228 E. 45ht St., New York, N. Y.; A. P. Schloegel, Executive Secretary, 701 Leader Bldg., Cleveland 14, O.

International Association of Printing House Craftsmen — 1953 Convention, Adolphus Hotel, Dallas, Tex., September 13, 14, 15 and 16. Convention in 1954 to be held in Philadelphia, dates to be announced. President, Gordon J. Holmquist, Cole-Holmquist Press, 1228 S. Flower St., Los Angeles 15, Calif.; Executive Secy., Pearl E. Oldt, 307 E. Fourth St., Cincin-

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nati 2, O.; Convention Chairman, Homer L. Green, Wilson Engraving Co., 2117 Commerce St., Dallas 1, Tex.

International Graphic Arts Education Association — 1953 Conference, Statler Hotel, New York, N. Y., June 14, 15, 16 and 17. President, Patrick F. Boughal, New York (N. Y.) School of Printing; Acting Educational Director, Fred J. Hartman, 719 Fifteenth St., N. W., Washington 5, D. C.

International Typographic Composition Association — 1953 Convention, Mayflower Hotel, Washington, D. C., September 24, 25 and 26. President, John R. Connell, Connell Typesetting Co., 302 E. Eighth St., Kansas City 6, Mo.; Frank M. Sherman, Executive Director, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Daily Newspaper Mechanical Conference—1953 Conference, Hotel Fort Des Moines, Des Moines, Ia., May 16, 17 and 18. President, Glen Meloy, Des Moines (Ia.) *Register-Tribune;* Secretary-Treasurer, Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald.*

Kansas Newspaper Mechanical Conference —1953 Conference, Town House, Kansas City, Kan., September 12 and 13. President, William Lawrence, Wichita (Kan.) *Eagle;* Secretary-Treasurer, Larry Miller, Kansas Press Assoc., 701 Jackson St., Topeka, Kan.

Lithographers National Association — 1953 Convention, Edgewater Beach Hotel, Chicago, June 16, 17 and 18. President, William H. Walters, United States Printing and Lithograph Co., Mineola, L. I., N. Y.; Executive Director, W. Floyd Maxwell, 420 Lexington Ave., New York 17, N. Y.

Mid-Atlantic Mechanical Conference—1953 Conference, William Penn Hotel, Pittsburgh, Pa., March 12, 13 and 14. Jointly sponsored by the New Jersey Press Assoc. and the Pennsylvania Newspaper Publishers Assoc. Conference Director, Theodore A. Serrill, PNPA General Mgr., 209 Telegraph Bldg., Harrisburg, Pa.

Missouri Newspaper Mechanical Conference—Secretary-Treasurer, O. K. Hammitt, Mechanical Supt., Moberly (Mo.) *Monitor-Index.*

National Association of Litho Clubs — 1953 Convention to be held in Detroit during month of May, exact dates and hotel to be announced later. President, John F. Maquire, Offset Engravers, 42 E. 20th St., New York, N. Y.; Secretary, Angelo Pustorino, Daniel Murphy Co., 480 Canal St., New York, N. Y.

Planning PIA Exhibition—*At left is John M. Wolff, President, with James R. Brackett, General Mgr., Printing Industry of America, considering the 1953 Printers' and Lithographers' Self-advertising Exhibition and Awards event. Awards will be presented at PIA Convention, Shoreham Hotel, Washington, D. C., in November. Miller Printing Machinery Co. will award three $1 thousand cash prizes and nine bronze Benjamin Franklin statuettes. Rules and entry blanks for the exhibit may be obtained from PIA, or Miller Printing Machinery Co.*

National Association of Photo-Lithographers—1953 Convention, Sheraton Hotel, Chicago, October 28, 29, 30 and 31. President, A. J. Fay, 75 Varrick St., New York, N. Y.; Executive Vice President, Walter E. Soderstrom, 317 West 45th St., New York 36, N. Y.

National Printing Equipment Association, Inc. — 1953 Meeting to be held during Printing Industry of American Convention, tentatively set for Shoreham Hotel, Washington, D. C., November 16-19. Exact date of meeting to be announced later. President, Fred S. Tipson, T. W. & C. B. Sheridan Co., 135 Lafayette St., New York 13, N. Y.; James E. Bennet, Secretary, 140 Nassau St., New York 38, N. Y.

Self-Advertising Exhibition

MILLER Printing Machinery Co. is again sponsoring the Printer's and Lithographer's Self-Advertising Exhibition to be shown during the annual Printing Industry of America convention at the Shoreham Hotel, Washington, D. C., November 16 to 19. W. T. Clawson, Miller's Advertising Mgr., has issued a four page bulletin in which is listed the rules and instructions for the contest. Awards in the 1953 Exhibition will be made for the best campaign advertising specimens submitted, as well as for the best individual specimens. First awards in the campaign advertising division will be $1 thousand and a Benjamin Franklin statuette for plants in three different categories, divided according to the number of employees. Prizes for the best individual specimens will be the statuettes. The contest is open to any printer or company engaged in printing by letterpress, offset, gravure, silk screen or comparable processes. Closing date for entries is October 23, 1953. Further information and entry forms may be obtained by writing either Printing Industry of America, 719 Fifteenth St., N. W., Washington 5, D. C., or Miller Printing Machinery Co., 1117 Reedsdale St., Pittsburgh 33, Pa.

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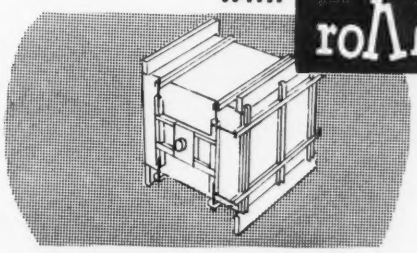

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New England Mechanical Conference — 1953 Conference, Hotel Statler, Boston, October 17 and 18. Charles W. Noonan, Pressroom Supt., Providence (R. I.) *Journal-Bulletin;* Secretary-Treasurer, Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day.*

Northwest Mechanical Conference — 1953 Conference, Hotel St. Paul, St. Paul, Minn., March 7, 8 and 9. President, Robert E. Lee, Composing Room Supt., St. Paul *Dispatch* and *Pioneer Press;* Secretary-Treasurer, Ralph Carson, Dunwoody Industrial Institute, Minneapolis, Minn.

Pacific Mechanical Conference — 1953 Conference, Statler Hotel, Los Angeles, September 25, 26 and 27. President, Al Tennyson, Composing Room Supt., Los Angeles *Times* and *Mirror;* Secretary for the North, Edw. N. Conley, color press foreman, San Francisco *Chronicle;* Secretary for the South, Fred J. Moyer, Los Angeles *Daily News.*

Printing Industry of America—1953 Convention (tentative), Shoreham Hotel, Washington, D. C., November 16, 17, 18 and 19. President, John M. Wolff, jr., Western Printing & Lithographing Co., Southwestern Div., 1310 S. Spring St., St. Louis, Mo.; James R. Brackett, General Manager, 719 Fifteenth St., N. W., Washington, D. C.

Abrams To Hold Open House—Shown above are the new quarters for the M. L. Abrams Co. at 1841 Prospect Ave., Cleveland 15, O., which will be the scene of open house activities on April 9, 10 and 11. The Abrams firm has extended an invitation to all members of the Graphic Arts industry to attend on this occasion. It is planned to have working demonstrations of recently developed equipment by factory representatives.

Research and Engineering Council of the Graphic Arts Industry, Inc. — 1953 Membership Meeting, tentative dates, May 14 and 15, St. Paul Minn., hotel to be announced later. 1954 meeting, May 11 and 12; 1955 meeting, May 12 and 13, city and hotel to be announced later. President Edward J. Triebe, Kingsport Press, Kingsport, Tenn.; Official Headquarters. Bernard J. Taymans, Managing Director, 719 Fifteenth St., N. W., Washington 5, D. C.

Screen Process Printing Association—1953 Convention, Statler Hotel, New York, November 1, 2, 3 and 4. President, Joseph Grossman, Masta Displays, Inc., 230 W. 17th St., New York 11, N. Y.; Secretary, Dan Novak, 549 W. Randolph St., Chicago 6, Ill.

SNPA (Eastern Div.) Mechanical Conference — 1953 Conference, Henry Grady Hotel, Atlanta, Ga., August 24 and 25. Conference Chairman, C. Leroy Ray, Mechanical Supt., Winston-Salem (N. C.) *Journal* and *Sentinel;* Secretary, Ray B. Crow, Southern Newspaper Publishers Assoc., P. O. Box 1569, Chattanooga 1, Tenn.; Chairman of Mfrs. and Suppliers' Group, W. E. Neely, Sam'l Bingham's Son Mfg. Co., 274 Trinity Ave., S. W., Atlanta, Ga.

SNPA (Western Div.) Mechanical Conference—1953 Conference, Texas Hotel, Ft. Worth, Tex., March 8, 9 and 10. Chairman, Frederic R. Rice, Little Rock (Ark.)

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PLANT LAYOUT • LABOR-SAVING RECOMMENDATIONS

Plant Managers, Mechanical and Production Executives are invited to write informally in a letter to the Editor about some means for improving operation or about some mechanical device which has been developed in their plants, so it can be passed along to readers of *Printing Equipment Engineer*.

Democrat; Secretary, Walter Johnson, jr., P. O. Box 1569, Chattanooga 1, Tenn. Chairman of Supply Men's Committee, Edwin Yagow, Goss Printing Press Co.

Technical Assoc. of the Graphic Arts — 1953 Meeting, Wardman Park Hotel, Washington, D. C., April 27, 28 and 29. President, John McMaster, Graphic Arts Div., Eastman Kodak Co., Rochester, N. Y.; Secretary-Treasurer, Paul J. Hartsuch, Printing Ink Div., Interchemical Corp., 161 W. Harrison St., Chicago 5.

Goes to 9 Col., Less Shrinkage, Continues with Plastic Blanket

The first New England paper to go to nine-columns, the Burlington (Vt.) *Free Press*, has effected the necessary mechanical changes and published its first 9 col. edition February 9, a date determined by newsprint supply. The classified section will be 10 col.

By using a 71 in. roll, for which its press was originally built, the press printing area can now be used to its full capacity in the 9 col. form, increasing present press capacity by 12½%. The 11½ pica column width is now in use, with 3 pt. column rules as before.

According to David W. Howe, Business Mgr., the necessary mechanical changes meant going from a 64 to 71 in. roll, were made over a 60 day period at a moderate cost. Howe stated that the day when an additional press unit will be needed has been postponed several years as a result of re-designing for 9 columns.

The new size sheet is expected to bring newspaper economies. Use of the plastic creeper blanket will be continued in the stereotype department. The *Free Press* will use stereotype mats of somewhat less moisture content and with less shrinkage than formerly.

In ANPA bulletin No. 51 of Sept. 4, 1952, *Report on Column Widths*, it is noted that in 1917, 50.6% of the newspapers were using pages at least 17½ in. wide. In 1951, fully 70% of the U. S. newspapers were 16½ in. wide or less in page width. Some 330 dailies with about half the circulation and half the advertising volume of the nation informed ANPA and were reported Sept. 4 as reducing below 12 picas, or favoring same. The Burlington *Free Press* like other 9 col. newspapers will have pages of 17¾ in. width.

On Extended Tour

Horace C. Lockwood, President of New Era Mfg. Co., is on a two-month around-the-world inspection of New Era Printing Press installations. His itinerary includes time out for a two-week hunting trip in the Thailand jungles. Lockwood's itinerary began in London, proceeding to Istanbul, Beirut, Delhi, Bombay, Calcutta, Bangkok, Hong Kong, Manila, Tokyo, Honolulu, and back to the United States at San Francisco on April 16. Highlight of his journey in the Far East is a visit in Bangkok with His Royal Highness Prince Yugala, New Era's sales agent in Thailand.

Floors, Walls, Ceilings

(**Continued from Page 37**)

bent-down anchor at each perforation. The edges of the plates are also perforated. The plates are set in freshly placed concrete and tamped into position so that the anchors are completely embedded and the plate brought into full bearing on the concrete. In areas subjected to heavy traffic, where a highly slip-resistant surface is desired, these plates warrant consideration.

Walls & Ceilings

In Fig. 2 are illustrated a number of wall and ceiling conditions which are adaptable to printing plants. In terms of cost, as well as other practical considerations, concrete masonry units (concrete blocks) of good quality have much to commend them. They have the strength and stamina to endure hard service and, when properly painted, provide an attractive and highly light reflective surface.

If the additional cost can be reconciled, (and it usually can in terms of maintenance) glazed tile blocks, either for the full height of the wall, or as a dado or wainscot of a height sufficient to get above the worst area for soiling, (usually from 5 ft. to 7 ft.) make a splendid plant wall. They have sufficient structural value so that they can be built up with the plant walls and do the double duty of structural wall and surface. In some instances, however, it is more practical to use them simply as a facing material and "soaps" (1¾ in. thick) are used. The tile units come in dimensions of (nominal) 5 in. by 8 in., 5 in. by 12 in. and (by some manufacturers) 8 in. by 16 in. The normal thickness is 3¾ in. and 1¾ in. "soaps". They require no paint-

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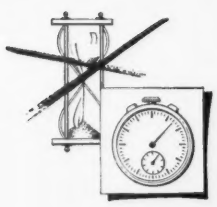

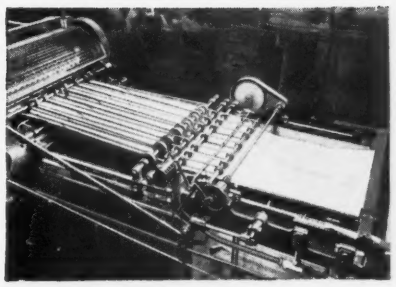

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ing and are readily cleanable. Obviously, this means something in maintenance costs and, since the joints are the soil holding part of the surface, the larger the tile units and the fewer the joints, the better.

Standard Shapes

A large number of standard shapes for corners, bases, caps, sills, etc., are made and almost any condition can be met with a standard unit. For those who like the domestic touch which is afforded by a flat window sill, a shape such as is shown at *A* in Fig. 2 is available. Such a ledge will accommodate a great miscellany of "things". If, however, the taste runs toward good plant housekeeping, the sloping sill shown at *B* is a better answer. It can't be used as a what-not.

Rule: Keep Areas Open

A generally good rule in industrial planning is this: "Keep areas open and undivided to the greatest degree possible." Said in another way, "Have as few partitions and dividing walls as possible." We are aware at the same time that certain operations because of noise, heat, odors, or other conditions require segregation. We also know that privacy is sometimes a requirement; also that for some processes and operations special conditions of light, temperature, air, etc., must be maintained. Obviously this means that interior walls and partitions cannot be avoided entirely.

Unit Partitions

A great many of these necessary interior walls and partitions can advantageously be standard unit partitions, such as the products of The E. F. Hauserman Co., The Mills Co., and others. They are adaptable to a great variety of conditions, are readily movable when adjustments of space become necessary, and are highly salvageable if and when they must be removed. In type, they range from strictly utilitarian industrial partitions to walls that are suitable for the finest offices. Their very wide use in the printing industry today is wholly warranted.

At *C* and *D* (Fig. 2) are shown two of the types of metal partitions most frequently used in industrial work. Type *C*, while somewhat more costly than type *D*, carries with it the advantage of a base and cornice construction through which wiring can be carried.

Enameled Metal Panels

We would like to mention another wall facing material, not because it has already achieved acceptance in this type of construction, but because of its so far latent possibilities. We refer to enameled metal panels for the facing of pressroom walls, and for similar uses. This material can be produced in large units which reduce the number of non-cleanable joints to a minimum. It could be used for facing existing walls, it occupies a small depth for construction and installation, and is highly cleanable. The units could be backed up for sound quieting and rigidity. We can think of no interior wall use which would test the stamina and durability of this material beyond that to which it is subjected in walls of service stations and similar outdoor use. Maybe sometime when the pressing needs of the deep-freeze, the refrigerator, the automobile, as well as some of our defense requirements have been partially satisfied, the manufacturers of this material will explore the possibilities of this market.

Desirable Ceiling Qualities

Ceiling conditions may be dictated by the structure of the floor above, or by the roof construction. In an existing plant, there may be little that can be done to accomplish improvement. The upper walls of an area and the ceiling affect lighting in an important way. Anything that can be done to clean up a ceiling and rid it of features which cast shadows, accumulate grime and generally lower reflectivity is a step toward improvement. In some instances, the installation of a suspended plaster ceiling may be justifiable.

Gypsum Roof Slab

When a new building is being constructed, there is much that can be done to create good ceiling conditions. One type of construction which is meeting with considerable favor for one story plants is the poured-in-place gypsum roof slab. Gypsum board sheets supported on

steel T purlins are the only forms required. The reinforced gypsum slab is then poured in place, roof insulation placed over it, and the roofing laid. The gypsum board form becomes the exposed ceiling, a smooth, clean surface that can either be painted or, when desired, covered with acoustical treatment.

Insulrock Material

A relatively new roof and ceiling material is Insulrock. Used as a bottom form for a poured-in-place roof slab, as described above, it replaces the above-slab roof insulation and at the same time provides acoustical treatment which is highly adequate for most situations. Used as a structural slab, itself, it serves not only that requirement but also provides insulation and sound correction. It is made in a width of 32 in., in lengths up to 8 ft. and from ¾ in. to 3 in. (nominal) in thickness. It is composed of chemically treated wood fibres and Portland cement, moulded under pressure. By spray-painting the ceiling, no appreciable reduction in acoustical value is lost and the ceiling has a very satisfactory light reflecting factor. It is manufactured by Insulrock Corporation.

Paint and Color

No discussion of walls and ceilings should be without reference to the importance of paint and color. The lower easily soiled portions of walls other than glazed tile walls, should be painted with a tough and hard wearing enamel that can be cleaned. Most of the leading paint manufacturers have developed industrial coatings which are highly durable. Above the dado, which should be painted a color that will not too readily show soil, the wall should be painted as light a color as can be obtained without undue eye strain. White, with just enough green added to remove glare, provides high reflectivity without sacrificing eye comfort. A tint approximating the lightest color on a dollar bill has been found satisfactory. Green tones, while generally accepted, are not the only answer. Gray tones, buff, or any other color may be worked out to suit a particular taste or situation so long as it is recognized that optimum seeing conditions require a high level of light output combined with freedom from glare and other conditions which create eye strain. The generally accepted ceiling color is an off-white. The standard white adopted by most manufacturers of acoustical ceiling tile meets this requirement admirably.

Cleanability is Important

Along with the selection of proper colors, attention should be given to the choice of materials which wear well and are cleanable. In areas where ink mist, fumes, smoke or other soiling agents are generated it is highly desirable that the finish coatings on walls and ceilings carry considerable gloss. Dead or matt finishes, while they undoubtedly have a desirable use elsewhere, foul up quickly under such conditions and soon lose both their attractiveness and light reflecting value. Most paint manufacturers make tough and hard wearing industrial coatings. This is the kind of merchandise that should be used in the working areas of a printing plant.

Equipment & Supplies

(**Continued from Page 30**)

built models. Accompanying each illustration in the two-color bulletin is a brief description giving the uses of the dispenser or taping machine, as well as the Scotch tapes it will accommodate. Copies are available by requesting PEE No. 563 in your letter.

Illuminated Pocket Magnifier

COLWELL Litho Products, Inc., has announced a 10X illuminated pocket magnifier designed for use by platemakers, printers, artists and salesmen. Called the CoLight Magnifier, it provides a view of the image area by means of a penlight which is set at a 23 deg. angle and illuminates the viewing field.

A cut-away section of the lens mount is designed to enable the user to make corrections on plates, both on and off the press. Magnification is provided by two

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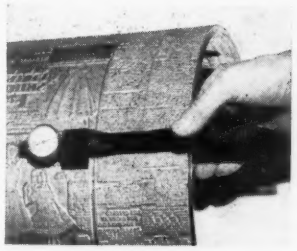

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plano-convex lens elements which the sponsor claims are corrected for color, spherical and other aberrations. A threaded mount permits adjustment of

The CoLight 10X illuminated pocket magnifier, reported by Colwell Litho Products, Inc., is for platemakers, printers, artists and salesmen.

the lens which can be held at the proper focal distance by a lock-nut. Illumination is obtained by a finger operated on-off switch.

Sponsor claims a filter glass situated in the light aperture assures even, color-true views from the center to the edge of the viewing field. Further information is available by mentioning PEE No. 565 in your request.

Register Table-Repeat Printer Companion Equipment

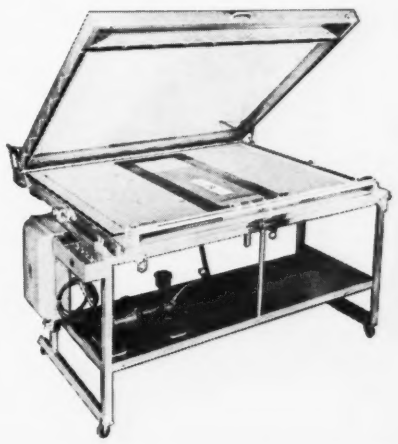
THE Anderson Register Table and Repeat Printer when used together by offset platemakers and photo-engravers provide a means for producing multiple copy in register either in photo-composition or direct on plate from single negatives, according to Paul Anderson Mfg. Co. Two sizes of the repeat printer are available. The Model B takes plates and copy up to 25½ in. by 36 in., including 27¼ in. by 29 in. Model XB4 accommodates plates up to and including 40 in. by 48 in.

The companion register table to Models B and XB4 Printers is provided with a light surface of 27½ in. by 46½ in. Used in conjunction with the printer, the Model B table has a different arrangement of positioning the chase than the Model XB4 table.

The repeat printer is designed for exposing on either film or direct on the plate. When exposing on film, the printer can be moved by means of roller casters to the darkroom. Sponsor states that only one set of color negatives is required for composing from four to 500 or more images on plate or film in register.

The chase in which the image is masked is positioned in alignment and register when attached to either table or printer. This is accomplished when the holes in one end of the chase are placed over the two register pins on table or printer.

The repeat printer is a completely equipped vacuum printing frame with a



Shown here is the Anderson Repeat Printer which is used in conjunction with the Anderson Register Table for producing multiple copy in register either in photo-composition or direct on plate from single negatives. It is manufactured by the Paul Anderson Mfg. Co.

plastic working surface. It is equipped with an automatic timer for timing exposures in minutes and seconds. There is a calibrated scale along the front edge of

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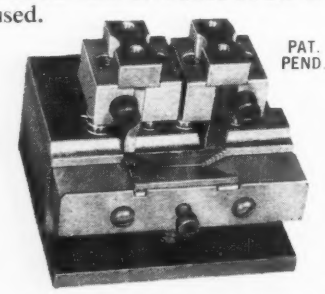

The Align-A-Mat

This precision-built tool will correct worn lugs on mats so they will distribute properly. The same operation will also restore alignment. When sorting up fonts, old mats will align with new ones.

Over 400 leading large and small newspapers, job printers, trade and ad shops are using the *Align-A-Mat* and saving **time** and **money**.

The *Clean-A-Mat* helps eliminate hairlines.

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the frame. The working limits for paper size and copy are marked on the chase.

In obtaining repeats of a typical three-color design, color separations are first made from enlarged copy. These are reduced to the proper printed size which, in this case, we will assume to be 1½ in. square. Each color separation negative is affixed to the masking paper which in turn is taped to the chase. Register marks on each negative are aligned to the vertical (long) axis of the chase by means of a T-square.

The chase is then removed from the table to the printer where the image is exposed for as many times as desired to 1½ in. stop settings. The result is a number of positives of three color separations, each set spaced exactly the same.

The strips for the individual colors are next cut apart and using the register table, are masked within the chase in the same manner as described above. For example, the strip containing the repeated images for the black plate is aligned in the chase. The chase in then set in the printer for still further repeats of the same image. The result is a negative with multiple copies of the same image for one color. The other two colors are handled in the same manner.

The floor area of the Model B Printer 41 in. by 63 in. with net weight of 350 lbs. Floor space of 65 in. by 74 in., is required for the Model XB4 Printer while its net weight is 425 lbs. A special unit of the printer is available for taking plates up to 46 in. by 56 in. Overall size of the Anderson Register Table is 31 in. by 50 in. and net weight is 200 lbs. It is equipped with heavy plated steel straight edges; illuminated with two 30 w., 36 in. fluorescent tubes; and constructed of 4 in. channel steel.

More details may be obtained by mentioning PEE No. 569 in your request.

Soft-type Synthetic Letterpress Inking Roller

IT WAS announced recently that a soft-type synthetic rubber letterpress roller that resists ink penetration and formation of built-up glaze, yet carries sufficient ink to give a clean, sharp, print impression, has been developed by the Dayton Rubber Co. It was explained that the roller is made from special blends of new type synthetic rubbers, combining the properties of pliancy and toughness and will deposit ink smoothly and uniformly on all types of forms without readily "dirty-up." The roller is designed for use on either flatbed or rotary presses. According to company engineers, laboratory and field tests of the new roller in general commercial printing indicated no tendency of the new soft rubber to build up a hard glaze deposit on the roll, making it relatively simple to keep clean. For more information, please refer to PEE No. 568 in your letter to *Printing Equipment Engineer*.

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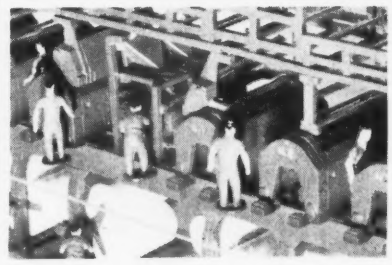

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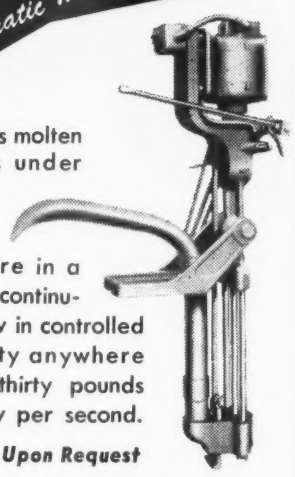

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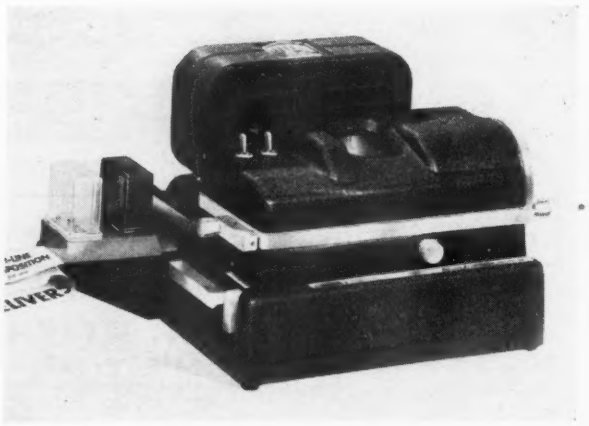
(*Continued from Page 78*)

Miller Handles Bronzing Machines—President R. B. Tullis, Miller Printing Machinery Co., recently announced that the sale of the Soldans Bronzemaster and Bronzminor bronzing machines will be handled and serviced by his organization. The machines are made by Soldans, Ltd., London, Eng. In the accompanying illustration the top section of the machine is shown with the covers removed. The dusting-off arrangement of the bands is shown clearly. The six bands are positioned with four alternating long and short sections reaching just past the center of the machine. Two finishing bands extend the full width of the bronzer. Thus, states Miller, where the excess dust is thickest the bands average half length and do not become clogged with dust and spill over. It is further claimed that this arrangement produces exceptionally clean sheets. As will be seen, the bands are positioned transcersely to the feeding and delivery mechanism. The machines are portable and are equipped with an air filtering system. The Bronzminor model is available in 30 in. and 37 in. sheet widths. The Bronzemaster model is now being produced in 44 in. and 52 in. widths, with a 65 in. machine soon to be available. Further information may be obtained by mentioning PEE No. 545 in your request.



Typro Type Composer—A portable photographic line composing machine, called the Typro, has been developed by Halber Corporation. Product of the machine is a 1¾ in. by length strip of standard or waterproof photosensitive paper or film bearing the selected type characters. The characters in a line are exposed letter by letter. Type faces range from 10 pt. or larger up to and including 144 pt. Letters are exposed by contact photography from film strips encased in a magazine at the top of the machine. All fonts consist of 93 characters including caps, lower case, fractions, percentage marks, etc. A universal aligning point, or base line, permits intermixing type characters. At least 12 fonts may be held in one magazine to permit uninterrupted use by the operator of the most used fonts. The film magazines are stated to slide into place without threading or splicing.

The machine is provided with adjustment for mechanical justification and line spacing. Sponsor states more than one type line may be composed on the paper strip. It is also stated that duplicate copies, reverses and screened effects may be reproduced without resetting copy. Mathematical or chemical symbols, virtually unlimited in length, as well as logotypes, borders, line drawings, halftones, photographs and microfilm can be reproduced. It is further explained that automatic proportional letter spacing is built into the master films, as well as the positioning overlapping or kerned letters to provide uniform color. All headlines appear dead black and are said to be microscopically sharp.

The Typro machine's dimensions are: 11 in. by 12 in. by 9 in. high, exclusive of the developer unit. Photosensitive paper (standard or waterproof) or film is supplied in 100 ft. rolls, 1¾ in. wide. There is an automatic supply indicator on the machine.

The two box-like units at the left side of the machine in the illustration are for developing and fixing the paper or film strip while composition proceeds. The developing fluid is a single developer solution.

To illustrate operation of the machine, an 8 in. line containing 40 characters can be exposed in approx. 3 min.

Please mention PEE No. 556 when requesting further information.

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March 1953

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This applies to you, too!

When you install a Fotosetter photographic line composing machine, you're not burdening your operators with a "maze of electronics." You are giving them the first *field-proven* phototypesetting machine that combines sound *mechanical* operation with the most advanced photographic techniques.

Electronic theory has stimulated much thought—even in the Graphic Arts—but it takes more than a theory to make a *profit* in today's competitive typesetting business. Can you picture your operators calling together "a group of expert consultants to diagnose the troubles in a piece of electronic gear" in the middle of a typesetting job?

Scores of Fotosetter users are proving the profit-earning features of their machines each day. Regular Fotosetter *keyboard* operators are producing the finest type ever set for offset, gravure and letterpress printing.

These operators (like your present ones) use *familiar* composing methods to set type from 4 to 36 points on film and photographic paper. The Fotosetter camera gives them the *speed* to match their skill—at the rate of 480 exposures per minute, or *28,800 per hour!* And the maintenance man serves a machine with familiar *mechanical* principles; he does not have to be an electronic engineer.

If it isn't made by Intertype, it isn't a FOTOSETTER *machine!*

ork Times

MACHINES FOUND TOO COMPLICATED

Engineers Call on Designers to Consider Those Who Operate Their Products

DEVICES OF WAR STRESSED

Maze of Electronics Depicted as Battle Burden—Even Home Gadgets Puzzling Users

Modern machines are becoming so complicated that many make mistakes trying to operate them, it was decided here yesterday at the closing session of the annual meeting of the American Institute of Electrical Engineers.

Either machines or men will have to be redesigned, several speakers at the Statler Hotel meeting said. Man being held immutable, it was suggested that designers of machines, particularly electronic devices used in warfare, would have to make the changes in their planning because too many control knobs requiring a complex alignment were being used.

Planes, tanks and weapons used in war are getting more and more complex, according to speakers representing the branches of the armed forces. The reason, they said, is the need to overcome the potential enemy's advantage in manpower.

—New York Times, January 24, 1953

Type for this ad was set entirely on an Intertype Fotosetter photographic line composing machine without use of any metal type. Text and display present excellent showings of Century Schoolbook, Futura Extrabold and Brush—a few of the more recent and popular additions to the growing library of Fotosetter faces. This is 6 Pt. Futura Demibold.

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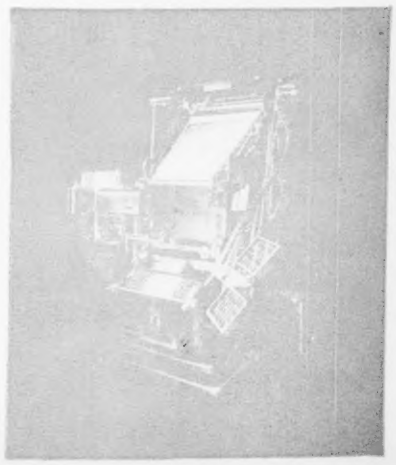
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